

**SECOND AND THIRD QUARTERS 2005
QUARTERLY MONITORING REPORT
STATUS OF CLOSURE
AND WORKPLAN TO ABANDON
MONITORING WELLS**

SITE:

FORMER DISCOUNT TIRE CENTER #53
1200 I STREET,
SACRAMENTO, SACRAMENTO COUNTY, CALIFORNIA

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SEPTEMBER 2, 2005

TABLE OF CONTENTS

1.0	INTRODUCTION	1
2.0	GENERAL SITE INFORMATION	1
2.1	Site Description	1
2.2	Geology / Hydrogeology	1
3.0	PREVIOUS INVESTIGATIONS	1
4.0	ACTIVITIES DURING SECOND QUARTER 2005	8
4.1	Ground Water Measurements	8
4.2	Ground Water Sampling	10
4.3	Ground Water Analytical Data	10
4.4	Discussion of Ground Water Analytical Results	11
4.5	Inorganic Geochemical and Biological Indicator Testing	13
4.5.1	Discussion of Inorganic Geochemical and Biological Indicators	14
4.5.2	Nutrient Testing	17
4.5.3	Discussion of Bacteria Enumeration Assays	18
4.5.4	Conclusions	19
4.6	AB2886 Submittal Report	20
4.7	Purge Water	20
5.0	ACTIVITIES DURING THIRD QUARTER 2005	20
5.1	Ground Water Measurements	20
5.2	Ground Water Sampling	21
5.3	Ground Water Analytical Data	21
5.4	Discussion of Ground Water Analytical Results	25
5.5	AB2886 Submittal Report	26
5.6	Purge Water	26
6.0	STATUS OF REQUEST FOR NFAR STATUS	26
7.0	WORKPLAN TO ABANDON MONITORING WELLS	26
7.1	Well Abandonment Procedures	27
8.0	NEXT PHASE OF INVESTIGATION	27
9.0	STATEMENT OF LIABILITY	27

TABLE OF CONTENTS
(Continued)

A.0	CUMULATIVE WATER LEVELS AND ANALYTICAL RESULTS	A1
A.1	Cumulative Ground Water Elevation Data	A1
A.2	Cumulative Soil Analytical Results	A2
A.3	Cumulative Ground Water Analytical Results	A6

LIST OF TABLES

3-1	Monitoring Well Construction Details	5
4-1	Ground Water Elevation Data for April 26, 2005	8
4-2	Analytical Results of Ground Water Samples Collected April 26, 2005 Analyzed by EPA Method 8260B for TPHg, BTEX, and MTBE; and by EPA Method 8015(M) for TPHd	10
4-3	Positive Analytical Results of Ground Water Samples Collected April 26, 2005 Analyzed by EPA Method 8260B for Volatile Organic Compounds	11
4-4	Analytical Results for Water Samples Collected on April 26, 2005 Analyzed by Methods Indicated for Geochemical and Biological Indicators	14
4-5	Summary of Geochemical and Biological Indicator Tests of Samples Collected April 26, 2005 Level of Indication of Biodegradation	16
4-6	Analytical Results for Water Samples Collected on April 26, 2005 Analyzed by Methods Indicated for Organic Nutrient Indicators	17
4-7	Analytical Results of Water Samples Collected April 26, 2005 Analyzed for Total Heterotrophic Bacteria	19
5-1	Ground Water Elevation Data for July 12, 2005	21
5-2	Analytical Results of Ground Water Samples Collected July 12, 2005 Analyzed by EPA Method 8260B for TPHg, BTEX, and MTBE; and by EPA Method 8015(M) for TPHd	23
5-3	Positive Analytical Results of Ground Water Samples Collected July 12, 2005 Analyzed by EPA Method 8260B for Volatile Organic Compounds	23
A-1	Ground Water Elevation Data for October 15, 2001 through Present	A1
A-2	Analytical Results of Soil Samples Collected November 17, 2000 Analyzed by EPA Methods 8015(M), 8010B, and 8020A	A2
A-3	Analytical Results of Soil Samples Collected During Monitoring Well Installation Analyzed by EPA Method 8260B and 8015(M) for TPHg, TPHd, and BTEX	A2
A-4	Analytical Results of Soil Samples Collected During Monitoring Well Installation Analyzed by EPA Method 8260B for MTBE and Lead Scavengers	A3
A-5	Analytical Results of Spoil Pile Collected July 26, 2001 Analyzed by EPA Methods 8260B, 8015(M), and 6010	A3
A-6	Analysis Performed on Soil Samples Collected August 9, 2001	A4

LIST OF TABLES

(Continued)

A-7	Analytical Results of Soil Samples Collected August 9, 2001 Analyzed by EPA Method 8260B for TPHg and BTEX; and by EPA Method and 8015(M) for TPHd and TPHmo	A4
A-8	Analytical Results of Soil Samples Collected August 9, 2001 Analyzed by EPA Method 6010B for the Five LUFT Metals	A5
A-9	Analytical Results of Soil Samples Collected January 14, 2004 Analyzed for TPHg, TPHd, TPHmo, BTEX, and MTBE	A5
A-10	Analytical Results of Ground Water Samples Collected November 17, 2000 Analyzed by EPA Methods 8015(M), 8010B, and 8020A	A6
A-11	Analytical Results of Water Sample Collected July 26, 2001 from the 500 Gallon Tank Analyzed by EPA Methods 8260B, 8015(M), and 6010	A6
A-12	Analytical Results of Ground Water Samples Analyzed by EPA Method 8260B for TPHg, BTEX, and MTBE	A7
A-13	Analytical Results of Ground Water Samples Analyzed by EPA Method 8260B for the Five Oxygenates and Lead Scavengers . .	A9
A-14	Analytical Results of Ground Water Samples Collected January 14, 2004 Analyzed by EPA Method 8260B for TPHg, BTEX, and MTBE; and by EPA Method 8015(M) for TPHd and TPHmo	A10
A-15	Positive Analytical Results of Ground Water Samples Analyzed by EPA Method 8260B for Volatile Organic Compounds All Results in Parts Per Billion (ppb)	A11
A-16	Positive Analytical Results ¹ of Ground Water Samples Collected January 14, 2004 Analyzed for Volatile Halocarbons	A13
A-17	Analytical Results for Water Samples Collected on April 26, 2005 Analyzed by Methods Indicated for Geochemical and Biological Indicators	A14
A-18	Analytical Results for Water Samples Collected on April 26, 2005 Analyzed by Methods Indicated for Organic Nutrient Indicators	A14
A-19	Analytical Results of Water Samples Collected April 26, 2005 Analyzed for Total Heterotrophic Bacteria	A15

LIST OF FIGURES

1	Site Vicinity Map	2
2	Generalized Site Map	3
3	Detailed Site Map	4
4	Ground Water Contours 04/26/05	9
5	Ground Water Analytical 04/26/05	12
6	Ground Water Contours 07/12/05	22
7	Ground Water Analytical 07/12/05	24

LIST OF APPENDICES

Appendix A	Cumulative Analytical
Appendix B	Monitoring Well Purge Data Sheets
Appendix C	Certified Laboratory Analytical Reports
Appendix D	AB2886 Submittal Report
Appendix E	Correspondence

1.0 INTRODUCTION

This *Second & Third Quarters 2005, Quarterly Monitoring Report, Status of Closure, and Workplan to Abandon Wells* (Report/Workplan) was prepared by Applied Engineering and Geology, Inc. (AEG), at the request of Dorothy Noyes, et al (Property Owner), of the subject Site. This Report documents the occurrence of environmental activities regarding the Former Discount Tire facility (Site) during April, May, and June (Second Quarter) and July, August, and September (Third Quarter). This Report is intended to comply with Title 23, Section 2652 (d) of the *California Code of Regulations* for this Site.

2.0 GENERAL SITE INFORMATION

2.1 Site Description

The Site is located at 1200 I Street, Sacramento, Sacramento County, California (see **Figure 1**). The Site is the location of a former automobile tire store (see **Figures 2 and 3**). It is also the former location of a gasoline service station that closed approximately 50 years ago. The Site is at an elevation of approximately 21 feet. Topography in the vicinity is relatively flat.

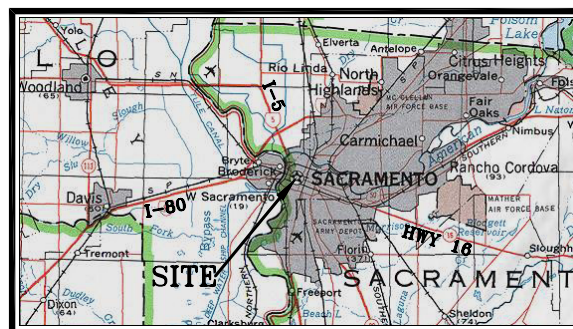
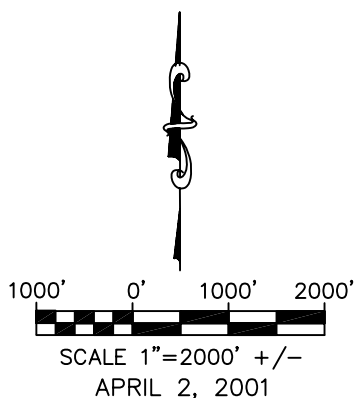
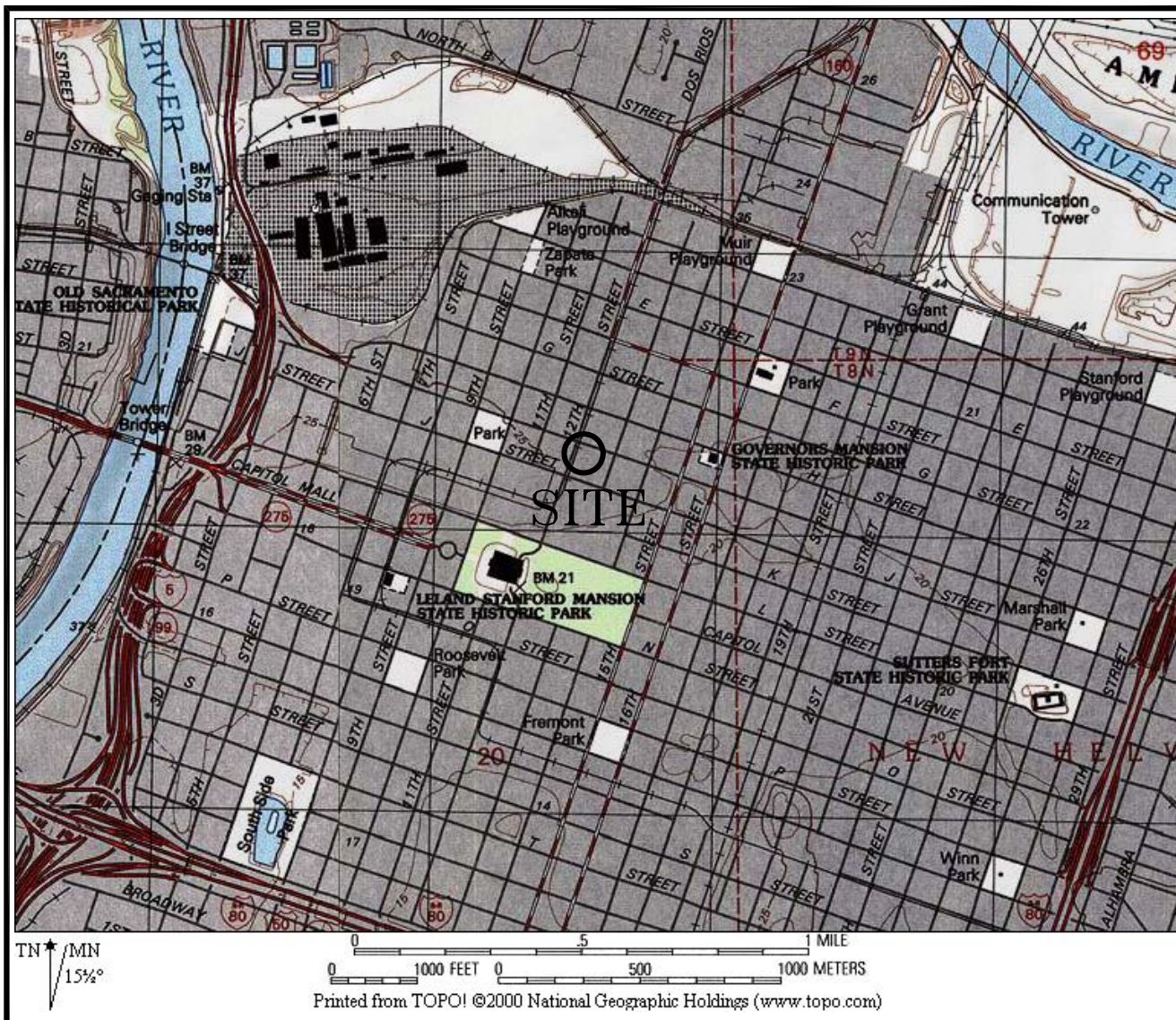
2.2 Geology / Hydrogeology

This Site lies on a nearly flat area that is part of the Sacramento Valley, an alluvial plain of continental deposits overlying a thick layer of marine sediments. The alluvium consists of fine sands, silts and clays. Soil beneath the Site is predominantly sands intermixed with silts and clays. Depth to ground water varies, but was reported to be at a depth of approximately 16 feet below ground surface (bgs) by Sierra Piedmont Engineers and Geologists (Sierra Piedmont) in *Limited Subsurface Investigation*, dated December 8, 2000. AEG has encountered ground water at depths that range from 15-19 feet bgs.

3.0 PREVIOUS INVESTIGATIONS

In 2000, Sierra Piedmont conducted a *Phase I Environmental Assessment* (Phase I) of the Site for Goodyear Tire & Rubber Company (Goodyear). Findings of the Phase I prompted Sierra Piedmont to propose a limited *Phase II Environmental Site Assessment* (Phase II Investigation). This Phase II Investigation included the use of ground penetrating radar at the Site and the placement of three temporary monitoring wells for the collection of soil and ground water samples.

On October 26, 2000, Sierra Piedmont was onsite to oversee Gasch & Associates, Inc. (G&A), as they conducted a geophysical investigation of the Site. G&A presented their findings in *Report of Findings for the Ground Penetrating Radar Data Acquisition at the I Street Discount Tire Center in Sacramento, California*, dated December 18, 2000. This investigation noted “a relatively deep anomaly, with the characteristics of a UST.”.



NOT TO SCALE

S:\AEG DOCUMENTS\DISCOUNT TIRE\DISCOUNT TIRE FIG. 1.DWG(22)

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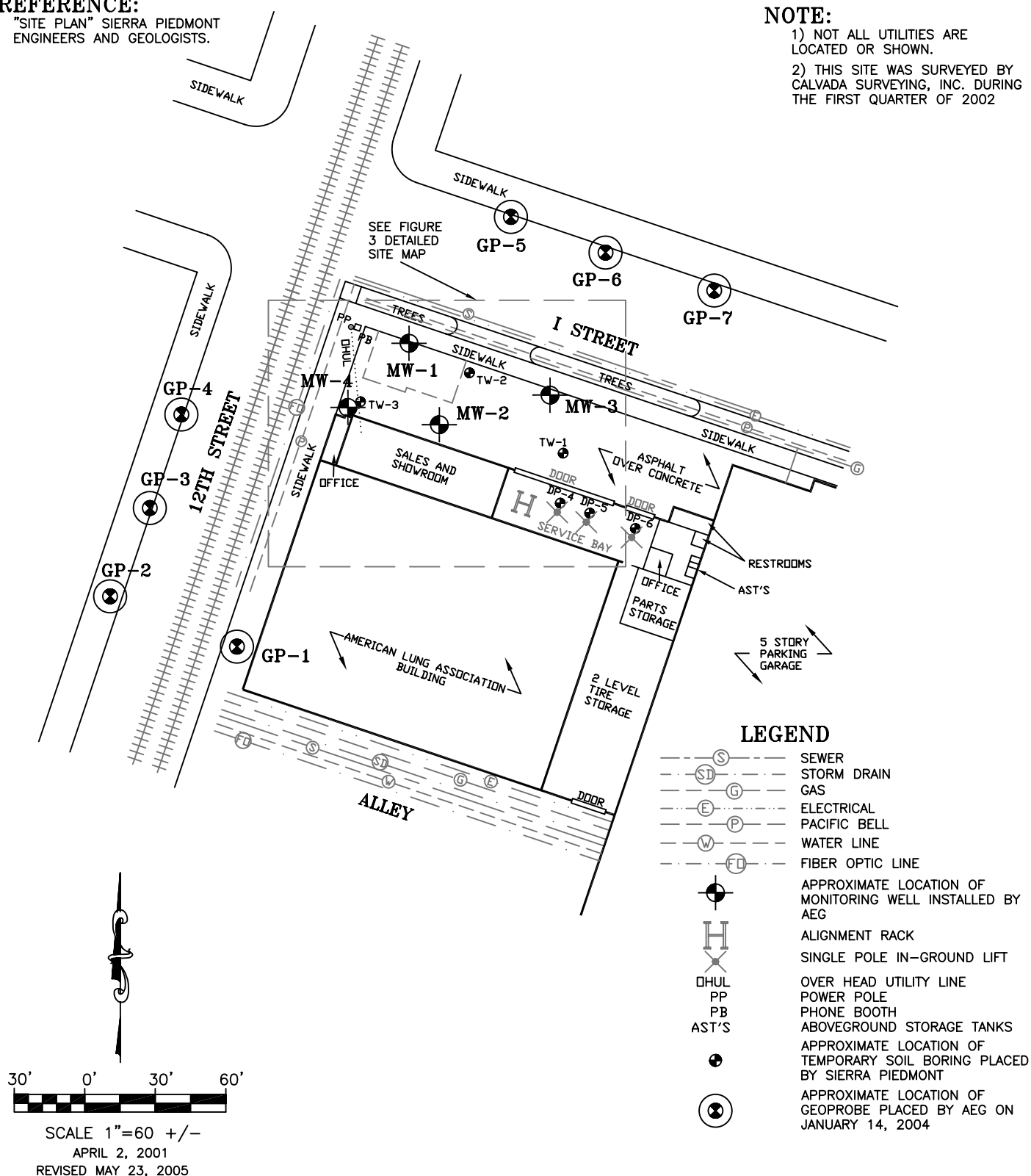
SITE VICINITY MAP
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1200 I STREET
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FIGURE 1

"SITE PLAN" SIERRA PIEDMONT
ENGINEERS AND GEOLOGISTS.

1) NOT ALL UTILITIES ARE LOCATED OR SHOWN.

2) THIS SITE WAS SURVEYED BY CALVADA SURVEYING, INC. DURING THE FIRST QUARTER OF 2002



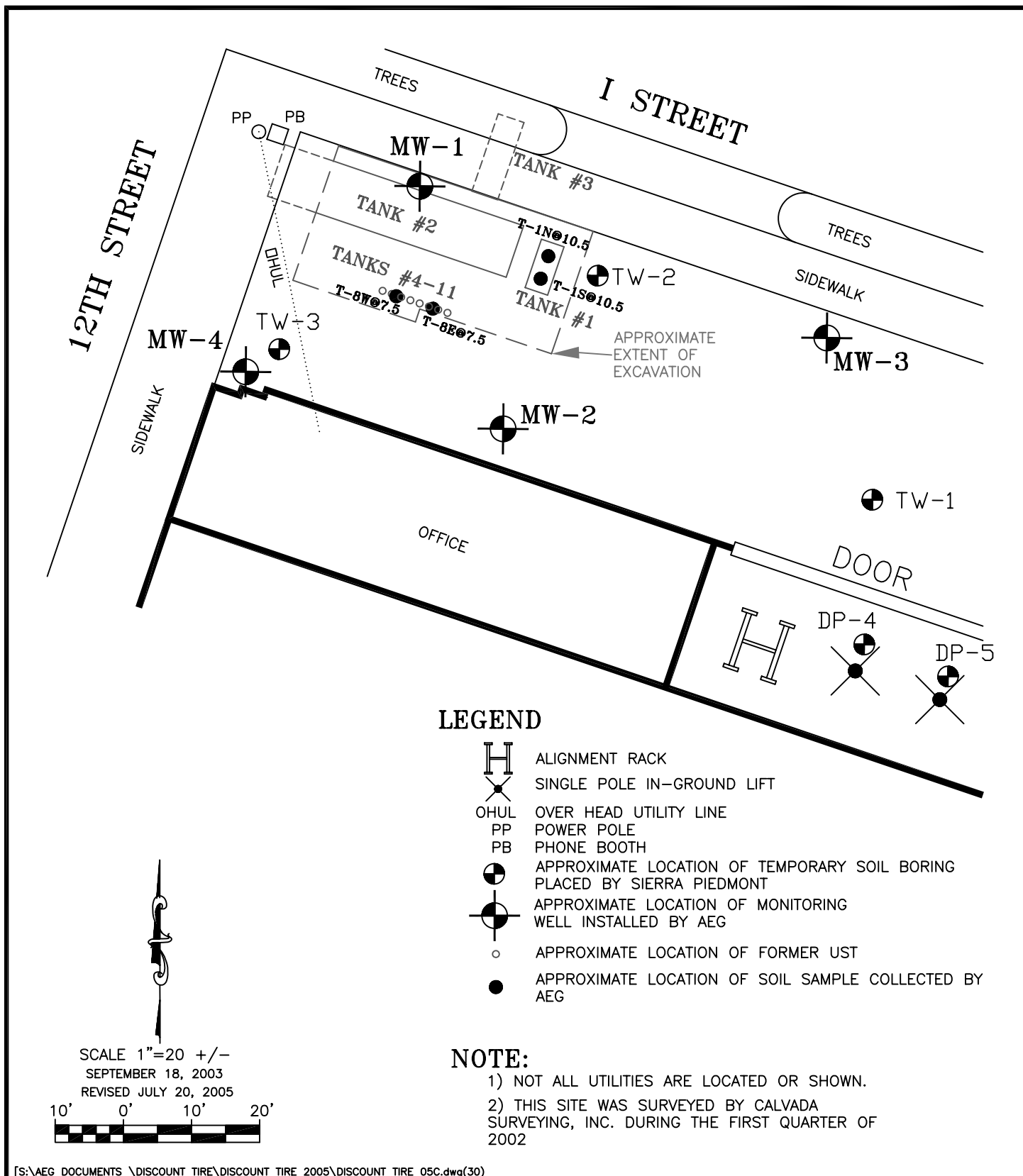
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**GENERALIZED SITE MAP
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FIGURE 2



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DETAILED SITE MAP
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FIGURE 3

On November 17, 2000, a truck mounted direct push rig was utilized to collect soil and ground water from the subsurface of the Site.

Results of the Phase II Investigation determined petroleum hydrocarbons existed in soil and ground water beneath the Site. Analysis of the ground water also detected the presence of low concentrations of volatile organic compounds (VOCs) usually associated with dry cleaning establishments or vehicle maintenance operations. The analyses conducted were not complete. Soil samples were not analyzed for the benzene, toluene, ethylbenzene, and xylenes (BTEX) analytes and water samples were not analyzed for total petroleum hydrocarbons as gasoline (TPHg) or total petroleum hydrocarbons as diesel (TPHd). Ground water levels were not obtained, nor was a direction of ground water flow determined.

Analytical results from the Phase II Investigation are shown in **Appendix A, Tables A-2 and A-10**. Based on analytical data from the Phase II Investigation, the County of Sacramento Environmental Management Department (County) directed that an investigation be conducted to determine the extent of soil and ground water contamination beneath the Site.

AEG prepared a *Site Contamination Workplan* (Workplan), dated April 12, 2001, which proposed the placement of three ground water monitoring wells at the Site, and performing a Sensitive Receptor Survey of the area around the Site. The Workplan was approved by the County on May 10, 2001.

Installation of the three ground water monitoring wells was initiated on July 18, 2001. During the field activities, underground storage tanks (USTs) were located at the Site, allowing only two of the three monitoring wells (MW-2 and MW-3) to be installed. AEG acquired permits to remove the USTs, and following tank removal activities completed the installation of monitoring wells.

Analytical results of samples collected during the installation of MW-2 and MW-3 prompted AEG to propose, and the County to approve, the installation of an additional ground water monitoring well (MW-4) at the Site, information as to the details and construction can be found in **Table 3-1**. Soil analytical results are presented in **Tables A-3 and A-4**. Ground water analytical results are presented in **Table A-12, A-13, and A-15**.

TABLE 3-1			
Monitoring Well Construction Details			
Well Number	Total Depth (ft)	Length of Screen (ft)	Well Diameter (inches)
MW-1	24.87	15	2
MW-2	25.21	15	2
MW-3	25.19	15	2
MW-4	24.74	15	2

On July 18, 2001, AEG utilized a backhoe to investigate the deep anomaly located by G&A in November 2000. Two USTs were located with the backhoe, and the investigation was suspended.

On July 19, 2001, while AEG was preparing to advance the borehole for MW-1, a UST was encountered during the hand augering procedure. At that time it was believed to be a third tank.

On July 26, 2001, AEG collected a water sample (see **Table A-11**) from the contents of Tank #1 (500 gal tank), and four soil samples of the spoil pile. The four soil samples were later composited by the laboratory, at a ratio of 4:1, into one sample for analysis (see **Table A-5**).

Between August 7, 2001 and August 13, 2001, AEG was onsite to remove the suspected three USTs. During excavation activities, AEG discovered that the suspected third UST encountered on July 19, 2001 was the other end of the large UST located on July 18, 2001. Additionally, nine other USTs were located during tank removal activities. A total of eleven USTs were located at the Site. Of the eleven USTs located, AEG removed nine, and abandoned the other two in-place (see **Figure 3**).

On September 28, 2001, AEG was again onsite to complete the installation of monitoring wells MW-1 and MW-4. Analytical results of samples collected during installation of the four monitoring wells, tank removals and abandonments, and ground water samples were presented along with a cross-sectional diagram of the Site and a Sensitive Receptor Survey in AEG's *Preliminary Investigation and Evaluation Report*, dated November 30, 2001. Analytical results of soil samples are presented in **Tables A-3** and **A-4**. Ground water samples were not collected during construction.

In a letter dated February 8, 2002, the County directed the Property Owners to investigate the possibility of existing monitoring wells, in the downgradient direction, that could be used to indicate the presence or absence of offsite transport and to provide a workplan for additional investigation.

The Site was surveyed on February 28, 2002, as required by AB 2886 (Electronic Submission Laboratory Reports) of the California Legislature Article 5, Chapter 3, Division 7, Section 13195 - 13198 Water Code with emergency regulations implemented by the State Water Resources Control Board.

At the request of Dorothy Noyes et al, Property Owner, AEG prepared *Workplan for Additional Investigation* (Workplan #2), dated April 1, 2003. Workplan #2 proposed the installation of seven Geoprobe® boreholes to a depth of 20 feet, with the collection and analysis of one soil sample and one ground water sample from each of the boreholes.

In a letter from Sacramento County, dated July 16, 2003, Laura Marshall-McLean (County) approved AEG's Workplan #2. However, she also suggested that the Closure Review Board review the Site information to determine if any additional information would be required.

The Closure Review Board met on September 12, 2003. The board felt that the current data were sufficient; however, upgradient wells would be needed. Laura Marshall-McLean (County) discussed this with Stan Walker (AEG). It was agreed that after the completion of Workplan #2 (Geoprobe® Investigation) the Site would be reassessed.

On January 14, 2004, AEG was onsite to install seven Geoprobe® boreholes as approved in Workplan #2. Results of Workplan #2 were presented in AEG's *Quarterly Monitoring Report, First Quarter 2004 and Report of Geoprobe® Investigation*, dated April 4, 2004. Analytical results of soil samples are presented in **Table A-9**. Analytical results of ground water samples are presented in **Tables A-14** and **A-16**.

After the Geoprobe® Investigation, AEG discussed the activities and analytical results with Laura Marshall-McLean (County). Ms. Marshall-McLean agreed with AEG that this Site does not pose a threat to human health or the environment, and that it should receive "No Further Action Required" (NFAR) status.

In AEG's *Quarterly Monitoring Report, Second Quarter 2004 and Request for Closure*, dated July 15, 2004, AEG requested that the Site receive NFAR status. Laura Marshall-McLean (County) requested that until "No Further Action Required" is granted, that the Site continue to be monitored on a quarterly basis.

Ernie Schofield (AEG) spoke with Laura Marshall-McLean (County) on December 15, 2004, to discuss Sacramento County's requirements, and options to move the Site to NFAR status. Ms. Marshall-McLean told AEG that to receive NFAR status, the total petroleum hydrocarbons as gasoline (TPHg) concentrations in ground water monitoring well MW-1 would need to show a declining trend, or the combined average trend at the Site would need to show a declining trend, or the occurrence of natural attenuation at the Site would need to be proven.

To proceed towards NFAR status, AEG produced *Quarterly Monitoring Report Fourth Quarter 2004, Status of Request for Closure and Evaluation of Remedial Options Workplan* (Workplan #3), dated January 31, 2005, proposing the following work be performed:

- Evaluation of the averaged declining trend;
- Natural attenuation testing; and,
- Evaluation of remedial options.

The County approved AEG's workplan to evaluate remedial options in a letter, dated March 28, 2005, with the following comments:

- A seasonal trend analysis has already been completed by this office. No statistically significant declining trend was found in either MW-1 or combined results from MW-1 and MW-4;

- Please prescreen potential remedial technologies. Each technology should be evaluated based upon 1) effectiveness, 2) implementability, and 3) cost; and,
- After prescreening, pick the best two or three technologies for further evaluation. Further evaluation may include an actual pilot study or may be the collection of additional data such as additional analysis of ground water for indication of biodegradation.

4.0 ACTIVITIES DURING SECOND QUARTER 2005

AEG was onsite April 26, 2005 for the collection of ground water data and ground water samples for laboratory analysis. All laboratory samples collected were analyzed as follows:

- MW-1 - TPHg, TPHd, BTEX, MTBE, and VOCs;
- MW-2 - TPHg, TPHd, BTEX, MTBE, and VOCs;
- MW-3 - TPHg, TPHd, BTEX, MTBE, and VOCs; and,
- MW-4 - TPHg, TPHd, BTEX, MTBE, and VOCs.

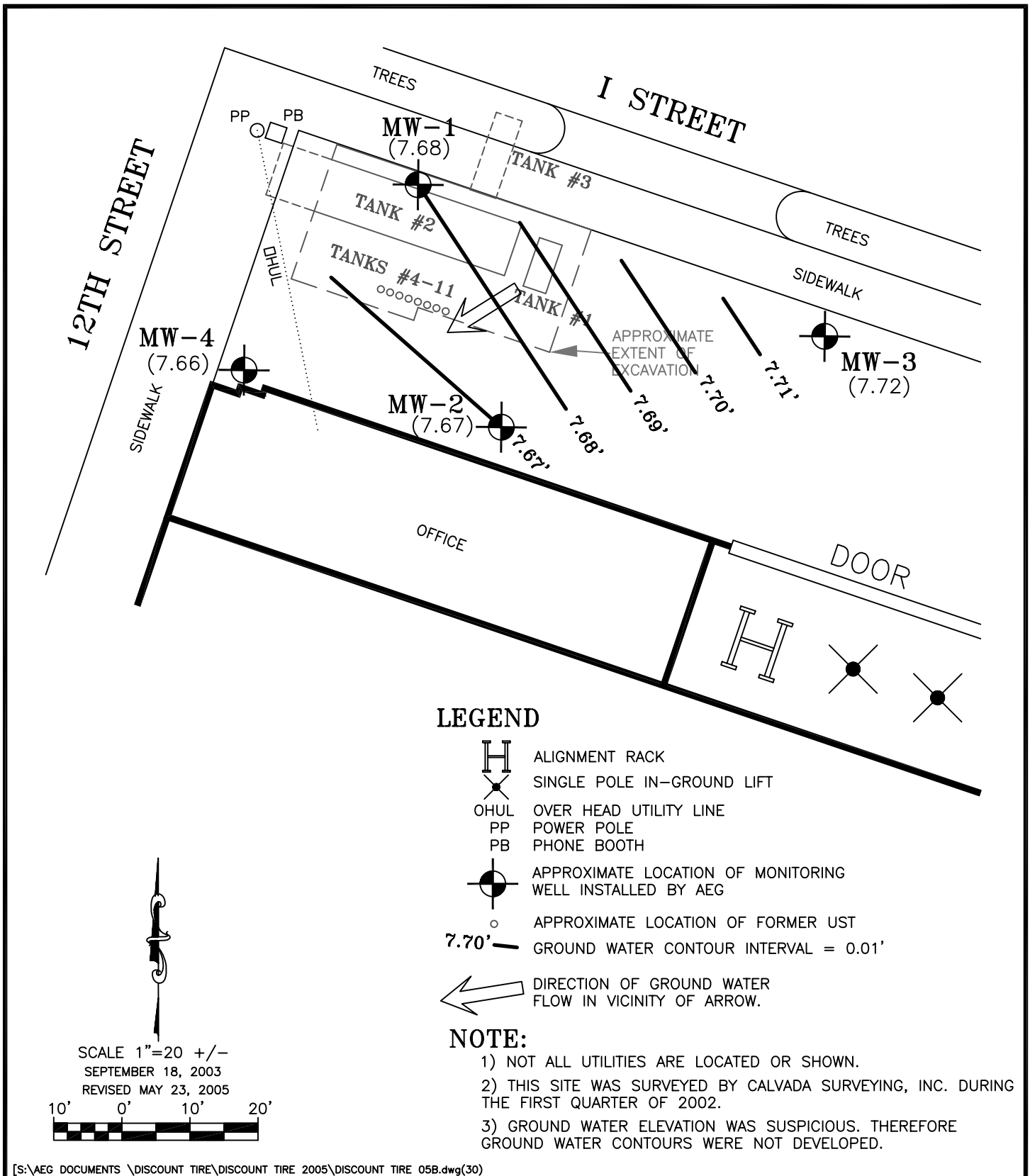
Additionally, AEG collected samples from all wells to be analyzed for biological indicators and aerobic bacterial plate counts.

4.1 Ground Water Measurements

The depth to ground water in the onsite monitoring wells were measured on April 26, 2005, as part of the quarterly monitoring. Ground water elevations were calculated by subtracting the depth to ground water in each well from the elevation of the top of the PVC casing. The elevation of the casing for each well was established relative to National Geodetic Survey (NGS) Monument JS1012. Ground water elevation data are shown in **Table 4-1**.

TABLE 4-1					
Ground Water Elevation Data for April 26, 2005					
Well	Top of Casing	Depth to Water	Ground Water Elevation	Direction of Flow	Gradient (ft/ft)
MW-1	21.83	14.15	7.68	S 58° W	0.0008
MW-2	22.35	14.68	7.67		
MW-3	22.10	14.38	7.72		
MW-4	22.03	14.37	7.66		

As presented in **Figure 4**, the ground water contours show the direction of ground water flow at **South 58° West** with a gradient of approximately **0.0008 feet per foot (ft/ft)**.



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GROUND WATER CONTOURS 04/26/05
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FIGURE 4

4.2 Ground Water Sampling

On April 26, 2005, ground water samples were collected from each of the monitoring wells. Prior to collection of ground water samples, ground water from each of the monitoring wells was analyzed for dissolved oxygen (DO). Then, the wells were purged of at least three well volumes or until dry. The temperature, pH, conductivity, and oxidation-reduction potential (ORP) of the purge water were measured and recorded. Following collection of the ground water sample, ground water was again field analyzed for DO. These measurements and other field data are shown on the purge sheets in **Appendix B**.

4.3 Ground Water Analytical Data

Ground water samples were analyzed by EPA Method 8260B for total petroleum hydrocarbons as gasoline (TPHg); benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl tert butyl ether (MTBE); and volatile organic compounds (VOCs), and by EPA Method 8015(M) for total petroleum hydrocarbons as diesel (TPHd). The samples were collected and transported under strict chain of custody and in accordance with EPA's SW 846 guidelines. The samples were preserved on ice and transported to Kiff Analytical for analysis. Analytical results are tabulated in **Tables 4-2** and **4-3**, and positive analytical results are presented in **Figure 5**. Copies of the certified analytical laboratory results are included in **Appendix C**.

TABLE 4-2 Analytical Results of Ground Water Samples Collected April 26, 2005 Analyzed by EPA Method 8260B for TPHg, BTEX, and MTBE; and by EPA Method 8015(M) for TPHd All Results in Parts Per Billion (ppb)							
Sample ID	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-1	4,000	<1,500	<0.50	<0.50	2.3	0.86	<0.50
MW-2	360	<200	<0.50	<0.50	<0.50	<0.50	0.75
MW-3	<50	<50	<0.50	<0.50	<0.50	<0.50	0.93
MW-4	1,100	<300	<0.50	<0.50	<0.50	<0.50	0.64

TPHg = Total petroleum hydrocarbons as gasoline

TPHd = Total petroleum hydrocarbons as diesel

MTBE = Methyl tert butyl ether

Laboratory note: "The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for samples MW-1, MW-2, and MW-4."

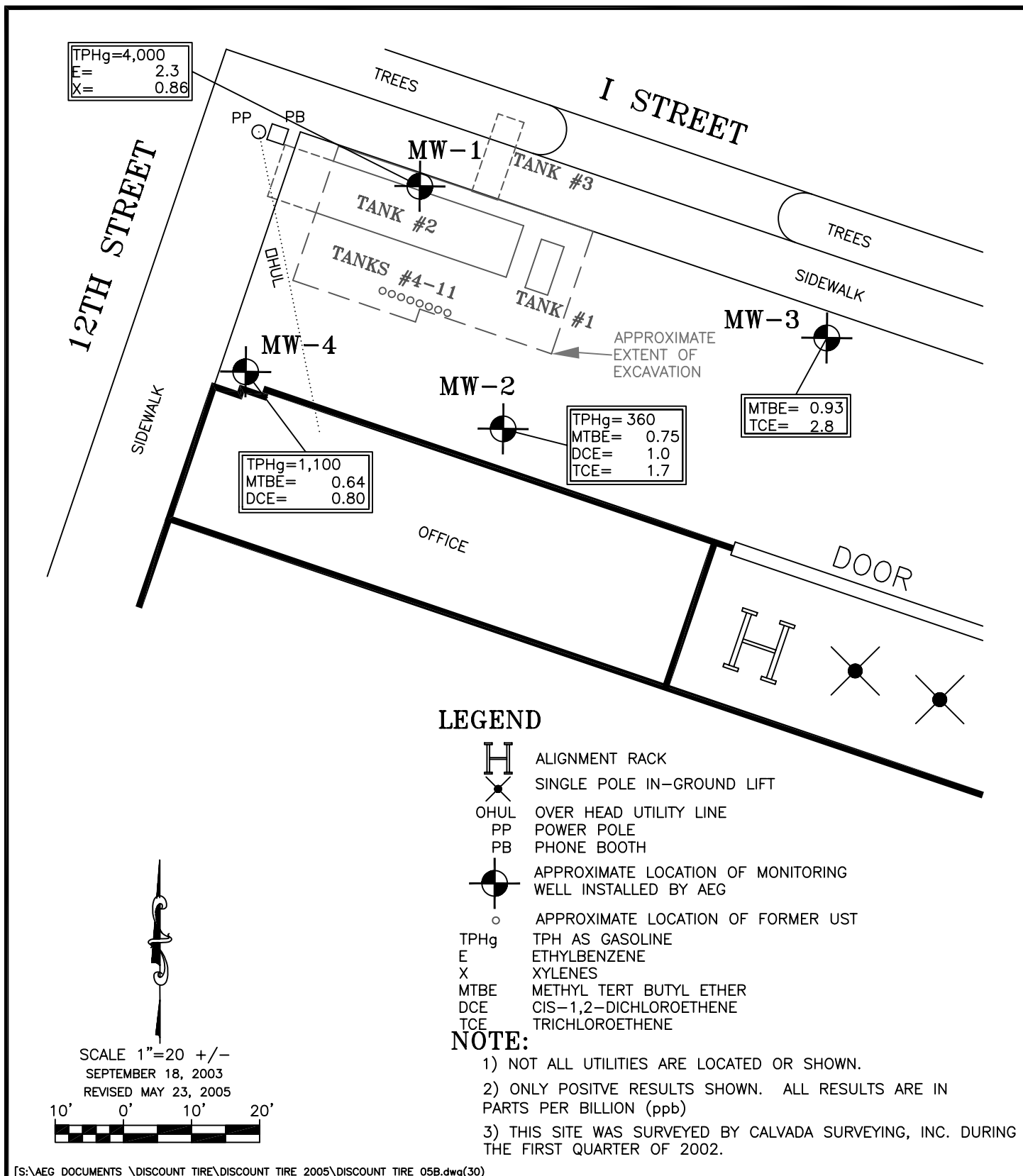
TABLE 4-3 Positive Analytical Results of Ground Water Samples Collected April 26, 2005 Analyzed by EPA Method 8260B for Volatile Organic Compounds All Results in Parts Per Billion (ppb)			
Sample ID	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride
MW-1	<0.50	<0.50	<0.50
MW-2	1.0	1.7	<0.50
MW-3	<0.50	2.8	<0.50
MW-4	0.80	<0.50	<0.50

4.4 Discussion of Ground Water Analytical Results

Laboratory analytical results from the April 26, 2005 sampling event indicate that ground water beneath the Site contains concentrations of petroleum hydrocarbons and VOCs.

A review of the laboratory analytical data indicates the following:

- TPHg- Three of the four ground water samples analyzed contained concentrations of total petroleum hydrocarbons as gasoline (TPHg) above the method reporting limit (MRL). The highest concentration was reported in *MW-1*, at 4,000 parts per billion (ppb).
- TPHd- None of the ground water samples analyzed contained concentrations of total petroleum hydrocarbons as diesel (TPHd) above their MRLs. It should be noted that *MW-1*, *MW-2*, and *MW-4* had higher MRLs due to interference from gasoline-range hydrocarbons.
- BTEX- *MW-1* was the only sample analyzed to contain any of the benzene, toluene, ethylbenzene, and xylenes (BTEX) constituents above their MRLs. *MW-1* was reported to contain ethylbenzene at a concentration of 2.3 ppb and xylenes at 0.86 ppb.
- MTBE- Three of the four ground water samples analyzed contained concentrations of methyl tert butyl ether (MTBE) above the MRL. The highest concentration was reported in *MW-3*, at 0.93 ppb.



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GROUND WATER ANALYTICAL 04/26/05
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FIGURE 5

VOCs-	Historically, samples collected at the Site have been analyzed for 29 volatile organic compounds (VOCs). Of these, only three have been reported above their MRLs (cis-1,2- dichloroethene, trichloroethene, and vinyl chloride).
Cis-1,2- Dichloroethene-	Two of the four ground water samples analyzed contained concentrations of cis-1,2- dichloroethene above the MRL. The highest concentration was reported in <i>MW-2</i> , at 1.0 ppb.
Trichloroethene-	Two of the four ground water samples analyzed contained concentrations of trichloroethene above the MRL. The highest concentration was reported in <i>MW-3</i> , at 2.8 ppb.
Vinyl Chloride-	None of the four ground water samples analyzed contained concentrations of vinyl chloride above the MRL.

4.5 Inorganic Geochemical and Biological Indicator Testing

Laura Marshall-McLean (County) approved additional analytical tests be performed during the Second Quarter Monitoring event in an Email dated April 14, 2005 (**Appendix E**). Therefore, in conjunction with the Second Quarter sampling event, on April 26, 2005, AEG collected ground water samples from monitoring wells MW-1, MW-2, MW-3, and MW-4 for the following additional analyses:

- Inorganic geochemical and biological indicators and nutrients; and,
- Bacterial plate count of aerobic total heterotrophs.

Ground water samples were analyzed for geochemical and biological indicators by EPA Method 350.2 for ammonia as nitrogen; by EPA Method 351.3 for total kjeldahl nitrogen (TKN); by Standard Method 2320B for total alkalinity as CaCO₃; by EPA Method 300.0 for sulfate, nitrate as nitrogen, nitrite as nitrogen, and ortho phosphate (as phosphate); by EPA Method 200.7 for potassium; by Standard Method 3500 for ferrous iron; and by EPA Method 200.7 for total dissolved iron. These samples were transported under strict chain of custody to Kiff Analytical for analysis. Ground water samples collected and analyzed for aerobic total heterotrophs by Standard Methods 9215B modified were transported under strict chain of custody to CytoCulture Environmental Biotechnology (CytoCulture) in Richmond, California for analysis.

Results for these analyses are presented in **Tables 4-4, 4-6, and 4-7** and in **Appendix A, Tables A-17, A-19, and A-20**. **Tables 4-5 and A-18** summarize the geochemical and biological indicator test results. Copies of the certified analytical laboratory report are included as **Appendix C - Certified Laboratory Analytical Reports**.

4.5.1 Discussion of Inorganic Geochemical and Biological Indicators

AEG collected ground water samples from four monitoring wells during the Second Quarter 2005 sampling event to be analyzed for inorganic geochemical and biological indicators. Results of the geochemical and biological indicator testing are presented in **Table 4-4**.

TABLE 4-4 Analytical Results for Water Samples Collected on April 26, 2005 Analyzed by Methods Indicated for Geochemical and Biological Indicators All Results in Parts Per Million (ppm)								
Sample	DO Before Purge	DO After Purge	Nitrate EPA 300.0	Nitrite EPA 300.0	Sulfate EPA 300.0	TDI EPA 200.7	Ferrous Iron (Fe ⁺²) SM 3500	Alkalinity as CaCO ₃ SM 2320B
MW-1	1.90	0.49	<0.10	<0.10	3.4	4.30	4.3	530
MW-2	2.19	1.15	1.5	<0.10	57	<0.100	<0.10	400
MW-3	2.14	0.98	4.1	<0.10	57	<0.100	<0.10	360
MW-4	2.23	0.44	<0.10	<0.10	16	0.837	2.0	460

DO = Dissolved Oxygen: readings are in milligram per liter (mg/L)
TDI = Total Dissolved Iron

The American Society for Testing and Materials, 1998 (ASTM) guidelines suggest that inorganic geochemical indicators of biodegradation may be included in secondary lines of evidence that natural attenuation is occurring. Changes in the composition of total petroleum hydrocarbons can be correlated to the depletion of electron acceptors due to biodegradation of the contaminants.

The inorganic composition of ground water where biodegradation is occurring demonstrates patterns of:

- Decreased dissolved oxygen (DO), nitrate (NO₃), ferric iron (Fe⁺³), and sulfate (SO₄); and,
- Increased alkalinity and ferrous iron (Fe⁺²) concentration.

The electron acceptors are usually depleted from ground water in the following order:

- ☐ Oxygen
- ☐ Nitrogen [Nitrate (NO_3) \rightarrow Nitrite (NO_2)]
- ☐ Iron [Ferric (Fe^{+3}) \rightarrow Ferrous (Fe^{+2})]
- ☐ Sulfur [Sulfate (SO_4) \rightarrow Sulfite (SO_3)]

Therefore, if ground water containing TPHg has a state of decreased DO, nitrate, ferric iron, and sulfate along with increased alkalinity and ferrous iron, natural attenuation processes are changing the composition of petroleum hydrocarbons. A review of these inorganic geochemical and biological indicators from samples collected from six monitoring wells reveal the following:

Dissolved Oxygen DO readings collected from the four wells, indicate low to moderate levels of DO in ground water beneath the Site. The average concentration of DO before purge in the four wells is 2.12 milligrams per liter (mg/L) and after purge is 0.77 mg/L. All monitoring wells indicate lower concentrations of DO after purging. The lower DO readings after purge indicates that aerobic biodegradation is occurring or has occurred beneath the Site.

Nitrates The concentration of nitrates ranged from <0.10 to 4.1 mg/L, with two of the four wells containing a concentration above the MRL. Of these two wells above the MRL, the average concentration was 2.8 mg/L. Plotting the concentration of nitrates indicates a general decrease across the Site, in the direction of ground water flow, which correlates with the impacted ground water plume. The decreased level in nitrogen, especially in the state of nitrate in the three wells with the highest concentrations indicates that biodegradation has occurred.

Iron Total Dissolved Iron (TDI) was detected in two of the four samples collected. *MW-1* and *MW-4* were reported to contain concentrations of 4.30 and 0.837 mg/L, respectively. Ferrous Iron (Fe^{+2}) was also detected in two of the four samples collected, ranging between 2.0 mg/L in the sample collected from *MW-4* to 4.3 mg/L in the sample collected from *MW-1*. The two samples that contained elevated concentrations of TDI also contained the highest concentrations of TPHg. Of the four samples, only these two samples were reported to contain concentrations of Fe^{+2} . Concentrations of TDI were equal to the reported concentration of Fe^{+2} reported in *MW-1*. Therefore, the concentration of Ferric Iron (Fe^{+3}) (computed as TDI minus Fe^{+2}) indicates that all of the Ferric Iron has oxidized to Ferris Iron in *MW-1*. A negative value for Ferric Iron in *MW-4* could be due to the different methods on analysis. The lack of Ferric Iron would indicate that ground water near these wells is changing from aerobic to that of anaerobic conditions. Neither an increase or decrease has been observed in *MW-1* and a decrease has been observed in *MW-4*, suggesting a change from aerobic to anaerobic conditions is not occurring.

Sulfate Sulfate was detected in all of the four samples collected, ranging from 57 mg/L in *MW-2* and *MW-3* to 3.4 mg/L in *MW-1*. The highest concentrations of sulfate appear to be in wells that contain lower to no concentrations of TPHg (*MW-2* and *MW-3*). This decrease in the reported concentration of sulfate indicates that aerobic biodegradation may be occurring or has occurred beneath the Site.

Alkalinity The values of alkalinity in samples collected and analyzed ranged from 530 mg/L in *MW-1* to 360 mg/L in *MW-3*, with an average concentration of 437.5 mg/L. There is an increase in alkalinity in samples from wells with high concentrations of TPHg, indicating that aerobic biodegradation may be occurring or has occurred beneath the Site.

Table 4-5 summarizes the geochemical and biological indicator test results, and discussed below.

TABLE 4-5 Summary of Geochemical and Biological Indicator Tests of Samples Collected April 26, 2005 Level of Indication of Biodegradation						
Sample	Total Number of Indicators	Dissolved Oxygen	Nitrates	Iron	Sulfates	Alkalinity
MW-1	5	X	X	X	X	X
MW-2	0	-	-	-	-	-
MW-3	1	X	-	-	-	-
MW-4	4	X	X	-	X	X

X = Possible indication that biodegradation has occurred or is occurring.

- = No indication that biodegradation has occurred or is occurring.

High Indication of Biodegradation - The samples collected from *MW-1* and *MW-4* had four or more indicators that biodegradation has occurred or is occurring. Analytical results from this Second Quarter sampling event show that ground water collected from these two wells contain the highest concentrations of total petroleum hydrocarbons as gasoline (TPHg).

Moderate Indication of Biodegradation - None of the samples collected had three indicators that biodegradation has occurred or is occurring.

Low Indication of Biodegradation - The sample collected from *MW-3* had only one indicator that biodegradation has occurred or is occurring. Analytical results from this Second Quarter sampling event show that ground water collected from this well does not contain concentrations of TPHg. However, minor concentrations of Trichloroethene (TCE) were reported.

No Indication of Biodegradation - The sample collected from MW-2 did not show any indicators that biodegradation had occurred or is occurring. Analytical results from this Second Quarter sampling event show that ground water collected from this well does contain concentrations of TPHg, as well as minor concentrations of methyl tert butyl ether (MTBE), Cis-1,2-Dichloroethene (DCE), and TCE.

4.5.2 Nutrient Testing

Select nutrients were analyzed to help identify if any nutrients were missing or in limited supply in the ground water at the Site. A shortage of certain nutrients could help explain why there has not been a greater reduction of petroleum hydrocarbons by biodegradation at the Site. Analytical results of select nutrients are presented in **Table 4-6** and **A-25**.

TABLE 4-6 Analytical Results for Water Samples Collected on April 26, 2005 Analyzed by Methods Indicated for Organic Nutrient Indicators All Results in Parts Per Million (ppm)				
Sample ID	Ammonia as Nitrogen EPA 350.2	Ortho-Phosphate EPA 300.0	Total Kjeldahl Nitrogen EPA 351.3	Potassium EPA 200.7
MW-1	<0.10	<0.10	0.56	2.49
MW-2	<0.10	<0.10	<0.50	3.84
MW-3	<0.10	0.11	<0.50	3.87
MW-4	<0.10	<0.10	<0.50	2.14

Results from these analyses indicate the following:

- Ammonia - None of the samples were reported to contain concentrations of ammonia above the method reporting limit (MRL).
- Ortho-phosphate - One of the four samples was reported to contain concentrations of ortho-phosphate above the MRL. MW-3 was reported to contain a concentration of 0.11 mg/L. The three wells reported to contain concentrations of petroleum hydrocarbons (MW-1, MW-2, and MW-3) do not have ortho-phosphate at a concentration greater than the MRL.

- Total Kjeldahl Nitrogen (TKN)- One of the four samples was reported to contain concentrations of TKN above the MRL. *MW-1* was reported to contain a concentrations of 0.56 mg/L.
- Potassium - All of the four samples were reported to contain concentrations of potassium above the MRL, ranging from 2.14 mg/L in *MW-4* to 3.87 mg/L in *MW-3*. The two samples with the lowest levels of potassium were also the samples from wells reported to have the highest concentrations of TPHg (*MW-1* and *MW-4*).

The analytical results for nutrients present in ground water indicate that three nutrients (ammonia, ortho-phosphate, and TKN) are either not present or is in limited supply in ground water from wells with concentrations of gasoline range petroleum hydrocarbons. None of the samples collected and analyzed were reported to contain ammonia above the MRL. The lowest levels of potassium were reported in wells with the greatest concentrations of TPHg, which may suggest that potassium has been utilized for aerobic biodegradation.

According to a note in CytoCultures' website: "*ammonia and ortho-phosphate are limiting nutrients required for microbial growth and activity. Ammonia is a preferred nitrogen source and ortho-phosphate is a preferred phosphorous source for most soil bacteria. Biodegradation activity could potentially be limited by low levels of these nutrients even if all other growth needs are available. Depletion of these nutrients, as compared to control wells outside of contaminated areas, can also be used as indicators of biodegradation activity*".

Missing or limited nutrients, if increased in quantity, under the right conditions can accelerate the growth of hydrocarbon degrading bacteria at the Site. Based on analytical results of ammonia and phosphate in ground water, it appears that the addition of these organic nutrient may be effective in increasing the growth of hydrocarbon degrading bacteria at the Site. However, since there has been no clear decrease of potassium, it is uncertain that the addition of potassium would increase the growth of hydrocarbon degrading bacteria at the Site.

4.5.3 Discussion of Bacteria Enumeration Assays

AEG collected ground water samples from the four monitoring wells on April 26, 2005 to be analyzed by CytoCulture Environmental Biotechnology (CytoCulture) using Standard Method 9215B for total heterotrophic bacteria using plate counts. For a complete description on the method of testing see the CytoCulture Analytical Results in **Appendix C**. Results of the bacteria enumeration assays are presented in **Table 4-7** and **A-26**.

TABLE 4-7 Analytical Results of Water Samples Collected April 26, 2005 Analyzed for Total Heterotrophic Bacteria All Results in Colony Forming Units per Milliliter (cfu/ml)			
Sample ID	Sample Date	Target Hydrocarbons Tested	Total Heterotrophs (cfu/ml)
MW-1	04/26/05	Gasoline/Diesel	4×10^3
MW-2	04/26/05	Gasoline/Diesel	2×10^3
MW-3	04/26/05	Gasoline/Diesel	3×10^3
MW-4	04/26/05	Gasoline/Diesel	3×10^3
Sterile Water	04/27/05	Gasoline/Diesel	0
Air Control	04/27/05	Gasoline/Diesel	0
Positive Control	04/27/05	Gasoline/Diesel	8×10^9

cfu/ml = colony forming units per milliliter

Laboratory footnote: Reporting Limit for enumeration data is 1.0×10^1 cfu/ml

An excerpt from CytoCulture's website notes that *total heterotrophic plate counts determine the total number of bacteria able to grow on a wide variety of carbon/energy sources. Hydrocarbon degrading bacterial plate counts enumerate populations of bacteria that have the ability to degrade gasoline, jet fuel, diesel, and/or other hydrocarbons.*

As shown in **Table 4-7**, total heterotrophs are present in ground water beneath the Site, ranging between 2,000 cfu/ml in *MW-2* to 4,000 cfu/ml in *MW-1*. In comparison, CytoCulture's control samples contained 8,000,000,000 cfu/ml of total heterotrophs.

4.5.4 Conclusions

As the results indicate, some amount of biological activity appears to be occurring or has occurred at the Site. AEG believes that the monitoring wells within proximity to and downgradient of the former tank cavities have more indicators that natural attenuation is occurring.

AEG also concludes that the wells are depleted of the proper electron acceptors for aerobic biodegradation and possibly proper nutrients may also be deficient for the growth of hydrocarbon consuming bacteria.

4.6 AB2886 Submittal Report

The Electronic Deliverable Format 1.2i (EDF) Data associated with the Second Quarter 2005 sampling event have been submitted. The EDF of this Report in PDF format will be uploaded when approved by the Client. Cumulative EDF uploads for Former Discount Tire are presented in the EDF Submittal Report, located in **Appendix D**.

4.7 Purge Water

Approximately 22 gallons of purge water were generated during the Second Quarter 2005 sampling event. On June 20, 2005, all purge water was transported and disposed of by InStrat of Davis, California.

5.0 ACTIVITIES DURING THIRD QUARTER 2005

AEG was onsite July 12, 2005 for the collection of ground water data and ground water samples for laboratory analysis. All laboratory samples collected were analyzed as follows:

- MW-1 - TPHg, TPHd, BTEX, MTBE, and VOCs;
- MW-2 - TPHg, TPHd, BTEX, MTBE, and VOCs;
- MW-3 - TPHg, TPHd, BTEX, MTBE, and VOCs; and,
- MW-4 - TPHg, TPHd, BTEX, MTBE, and VOCs.

5.1 Ground Water Measurements

The depth to ground water in the onsite monitoring wells were measured on July 12, 2005, as part of the quarterly monitoring. Ground water elevations were calculated by subtracting the depth to ground water in each well from the elevation of the top of the PVC casing. The elevation of the casing for each well was established relative to National Geodetic Survey (NGS) Monument JS1012. Ground water elevation data are shown in **Table 5-1**.

TABLE 5-1 Ground Water Elevation Data for July 12, 2005					
Well	Top of Casing	Depth to Water	Ground Water Elevation	Direction of Flow	Gradient (ft/ft)
MW-1	21.83	15.23	6.60	S 87° W	0.0008
MW-2	22.35	15.74	6.61		
MW-3	22.10	15.47	6.63		
MW-4	22.03	15.46	6.57		

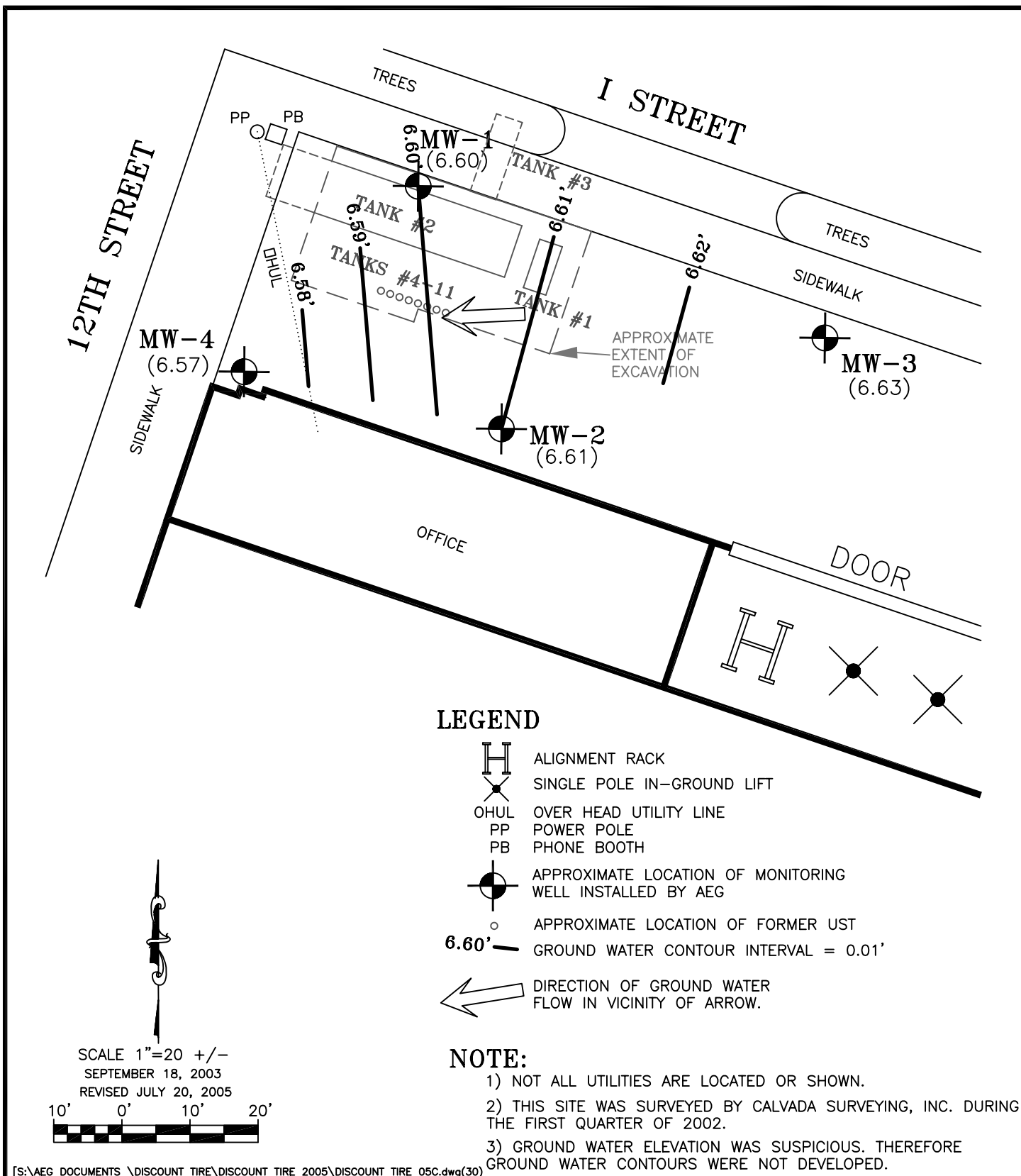
As presented in **Figure 6**, the ground water contours shows the direction of ground water flow at **South 87° West** with a gradient of approximately **0.0008 feet per foot (ft/ft)**.

5.2 Ground Water Sampling

On July 12, 2005, ground water samples were collected from each of the monitoring wells. Prior to collection of ground water samples, ground water from each of the monitoring wells was analyzed for dissolved oxygen (DO). Then, the wells were purged of at least three well volumes or until dry. The temperature, pH, conductivity, and oxidation-reduction potential (ORP) of the purge water were measured and recorded. Following collection of the ground water sample, ground water was again field analyzed for DO. These measurements and other field data are shown on the purge sheets in **Appendix B**.

5.3 Ground Water Analytical Data

Ground water samples were analyzed by EPA Method 8260B for total petroleum hydrocarbons as gasoline (TPHg); benzene, toluene, ethylbenzene, and xylenes (BTEX); methyl tert butyl ether (MTBE); and volatile organic compounds (VOCs) and by EPA Method 8015(M) for total petroleum hydrocarbons as diesel (TPHd). The samples were collected and transported under strict chain of custody and in accordance with EPA's SW 846 guidelines. The samples were preserved on ice and transported to Kiff Analytical for analysis. Analytical results are tabulated in **Tables 5-2** and **5-3**, and positive analytical results are presented in **Figure 7**. Copies of the certified analytical laboratory results are included in **Appendix C**.



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GROUND WATER CONTOURS 07/12/05
FORMER DISCOUNT TIRE
1200 I STREET
SACRAMENTO, SACRAMENTO COUNTY, CALIFORNIA

FIGURE 6

TABLE 5-2 Analytical Results of Ground Water Samples Collected July 12, 2005 Analyzed by EPA Method 8260B for TPHg, BTEX, and MTBE; and by EPA Method 8015(M) for TPHd All Results in Parts Per Billion (ppb)							
Sample ID	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-1	5,000	<1,500	<0.50	<0.50	2.8	0.85	<0.50
MW-2	440	<300	<0.50	<0.50	<0.50	<0.50	0.85
MW-3	<50	<50	<0.50	<0.50	<0.50	<0.50	1.0
MW-4	1,200	<300	<0.50	<0.50	<0.50	<0.50	0.72

TPHg = Total petroleum hydrocarbons as gasoline

TPHd = Total petroleum hydrocarbons as diesel

MTBE = Methyl tert butyl ether

Laboratory note: "The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for samples MW-1, MW-2, and MW-4."

TABLE 5-3 Positive Analytical Results of Ground Water Samples Collected July 12, 2005 Analyzed by EPA Method 8260B for Volatile Organic Compounds All Results in Parts Per Billion (ppb)			
Sample ID	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride
MW-1	0.52	<2.0	<0.50
MW-2	1.4	2.5	<0.50
MW-3	<0.50	3.3	<0.50
MW-4	1.6	<1.0	0.51

TPHg=5,000
E= 2.8
X= 0.85
DCE= 0.52

12TH STREET

SIDEWALK

PP PB

TREES

I STREET

TREES

SIDEWALK

MW-1

TANK #3

TANK #2

TANKS #4-11

TANK #1

APPROXIMATE
EXTENT OF
EXCAVATION

MW-3

MTBE= 1.0
TCE= 3.3

MW-2

TPHg= 440
MTBE= 0.85
DCE= 1.4
TCE= 2.5

MW-4

TPHg=1,200
MTBE= 0.72
DCE= 1.6
VC= 0.51

OFFICE

DOOR

LEGEND



ALIGNMENT RACK



SINGLE POLE IN-GROUND LIFT



OVER HEAD UTILITY LINE



POWER POLE



PHONE BOOTH



APPROXIMATE LOCATION OF MONITORING
WELL INSTALLED BY AEG



APPROXIMATE LOCATION OF FORMER UST

TPHg

TPH AS GASOLINE

E

ETHYLBENZENE

X

XYLENES

MTBE

METHYL TERT BUTYL ETHER

DCE

CIS-1,2-DICHLOROETHENE

TCE

TRICHLOROETHENE

VC

VINYL CHLORIDE

NOTE:

- 1) NOT ALL UTILITIES ARE LOCATED OR SHOWN.
- 2) ONLY POSITIVE RESULTS SHOWN. ALL RESULTS ARE IN PARTS PER BILLION (ppb)
- 3) THIS SITE WAS SURVEYED BY CALVADA SURVEYING, INC. DURING THE FIRST QUARTER OF 2002.

SCALE 1"=20' +/-

SEPTEMBER 18, 2003

REVISED JULY 20, 2005



[S:\AEG DOCUMENTS \DISCOUNT TIRE\DISCOUNT TIRE 2005\DISCOUNT TIRE 05C.dwg(30)]

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GROUND WATER ANALYTICAL 07/12/05
FORMER DISCOUNT TIRE
1200 I STREET
SACRAMENTO, SACRAMENTO COUNTY, CALIFORNIA

FIGURE 7

5.4 Discussion of Ground Water Analytical Results

Laboratory analytical results from the July 12, 2005 sampling event indicate that ground water beneath the Site contains concentrations of petroleum hydrocarbons and VOCs.

A review of the laboratory analytical data indicates the following:

- | | |
|--------------------------|---|
| TPHg- | Three of the four ground water samples analyzed contained concentrations of total petroleum hydrocarbons as gasoline (TPHg) above the method reporting limit (MRL). The highest concentration was reported in <i>MW-1</i> , at 5,000 parts per billion (ppb). |
| TPHd- | None of the ground water samples analyzed contained concentrations of total petroleum hydrocarbons as diesel (TPHd) above their MRLs. It should be noted that <i>MW-1</i> , <i>MW-2</i> , and <i>MW-4</i> had higher MRLs due to interference from gasoline-range hydrocarbons. |
| BTEX- | <i>MW-1</i> was the only sample analyzed to contain any of the benzene, toluene, ethylbenzene, and xylenes (BTEX) constituents above their MRLs. <i>MW-1</i> was reported to contain ethylbenzene at a concentration of 2.8 ppb and xylenes at 0.85 ppb. |
| MTBE- | Three of the four ground water samples analyzed contained concentrations of methyl tert butyl ether (MTBE) above the MRL. The highest concentration was reported in sample <i>MW-3</i> , at 1.0 ppb. |
| VOCs- | Historically, samples collected at the Site have been analyzed for 29 volatile organic compounds (VOCs). Of these, only three have been reported above their MRLs (cis-1,2- dichloroethene, trichloroethene, and vinyl chloride). |
| Cis-1,2- Dichloroethene- | Three of the four ground water samples analyzed contained concentrations of cis-1,2- dichloroethene above the MRL. The highest concentration was reported in <i>MW-4</i> , at 1.6 ppb. |
| Trichloroethene- | Two of the four ground water samples analyzed contained concentrations of trichloroethene above the MRL. The highest concentration was reported in <i>MW-3</i> , at 3.3 ppb. |

Vinyl Chloride-

One of the four ground water samples analyzed contained concentrations of vinyl chloride above the MRL. *MW-4* was reported to contain a concentration of 0.51 ppb.

5.5 AB2886 Submittal Report

The Electronic Deliverable Format 1.2i (EDF) Data associated with the Third Quarter 2005 sampling event have been submitted. The EDF of this Report in PDF format will be uploaded when approved by the Client. Cumulative EDF uploads for Former Discount Tire are presented in the EDF Submittal Report, located in **Appendix D**.

5.6 Purge Water

Approximately 20 gallons of purge water were generated during the Third Quarter 2005 sampling event. Purge water is currently stored onsite in 55 gallon drums.

6.0 STATUS OF REQUEST FOR NFAR STATUS

In the Second Quarter 2005, after receiving direction from the County to evaluate remedial options in a March 28, 2005 letter (**Appendix E**), AEG began to prepare a Site evaluation to determine the feasibility of enhancing the Site's natural attenuation. Additionally, AEG requested additional analytical testing, including biological indicator and plate count testing, be performed in an Email dated April 14, 2005. The County approved the additional testing in a return Email dated April 14, 2005 (**Appendix E**).

After performing the additional biological indicator and plate count testing as part of the Second Quarter 2005 monitoring event, AEG submitted the Second Quarter 2005 analytical data to the County for Closure Review in an Email dated July 12, 2005 (**Appendix E**). After reviewing the data, the County (with agreement from the Regional Board) granted the Site No Further Action Required (NFAR) Status in a letter dated August 1, 2005 (**Appendix E**).

7.0 WORKPLAN TO ABANDON MONITORING WELLS

In a letter dated August 1, 2005, the Discount Tire Site received No Further Action Required (NFAR) status (see **Appendix E**) from the County of Sacramento. AEG is therefore submitting this Workplan to Abandon Wells (Workplan #4) to describe the procedure for the abandonment of the four existing monitoring wells. AEG will schedule the abandonment of all wells following the approval of Workplan #4.

7.1 Well Abandonment Procedures

During the abandonment of MW-1, MW-2, MW-3, and MW-4, the traffic rated well box and surface completion will be removed. Then an "A" rod will then be inserted into the well casings. Next, the boreholes will be overreamed using 10-inch diameter augers over the top of the "A" rod. Leading the augers with the "A" rod will minimize the probability of the augers meandering off the original borehole, ensure that the filter pack is removed, and minimize the abandoned borehole acting as a conduit for vertical migration.

Once the boreholes are at total depth (approximately 25 feet), they will be filled with a bentonite-cement grout through a tremmie to a depth of approximately 12 inches bgs. The grout will consist of 7½ gallons of water and three pounds of bentonite powder to each 94 pound sack of Type I-II Portland cement.

Concrete will then be placed above the bentonite-cement grout from an approximate depth of 12 inches bgs to the surface.

All ground water and soil cuttings stored at the Site will be properly disposed of following the monitoring well abandonment.

8.0 NEXT PHASE OF INVESTIGATION

The Site has received "No Further Action Required" status. Therefore, AEG will not continue quarterly monitoring at the Site. After receiving approval for the abandonment of the monitoring wells, AEG will schedule abandonment activities.

9.0 STATEMENT OF LIABILITY

This *Second and Third Quarters 2005, Quarterly Monitoring Report, Status of Closure, and Workplan to Abandon Wells* (Report/Workplan) was prepared by Applied Engineering and Geology, Inc. (AEG), at the request of Mrs. Dorothy Noyes, et al, (Property Owner), using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable engineers, geologists, and scientists practicing in this or similar localities in California at the time this Report was prepared.

No other warranty, expressed or implied, is made as to the information and professional advice included in this Report/Workplan. This Report/Workplan was written to document remedial activities conducted at the Site and to comply with Title 23, Section 2652 (d) of the *California Code of Regulations*. Any reliance on this Report/Workplan by third parties shall be at such parties' sole risk.

AEG's Report/Workplan is based on factual information obtained from Dorothy Noyes, and others, that has been assumed to be correct, accurate and complete. Applied Engineering and Geology, Inc., does not guarantee the correctness, accuracy, or completeness of those data.

AEG's Report/Workplan of the presence and possible extent of selected hydrocarbons in soil and water at the Site is based on a limited number of observation points. Further investigation can reduce the inherent uncertainties associated with these types of limited environmental investigations.

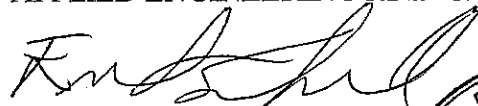
This Report/Workplan or any part thereof may not be reproduced in any form without written permission from Applied Engineering and Geology, Inc., its Principals, or agents.

All work performed by AEG will be performed under the direct supervision of the engineer, registered with the State of California, whose signature appears at the end of this document.

Should you have any questions regarding the content of this Report, please contact the undersigned at 916.645.6014.

Sincerely,

APPLIED ENGINEERING AND GEOLOGY, INC.



Ernie Schofield
Project Manager



Earl Stephens, RCE 45335
Principal Engineer



Additional copies were submitted to Dorothy Noyes for distribution to:

Laura Marshall-McLean, Sacramento County, Environmental Management Department
Kathy Amaru, Regional Water Quality Control Board
State Water Resources Control Board, UST Cleanup Fund
Carol Scheiber, Property Owner
Betty Van Meter, Property Owner
Alice Noyes, Property Owner

APPENDIX A

Cumulative Analytical

A.0 CUMULATIVE WATER LEVELS AND ANALYTICAL RESULTS

A.1 Cumulative Ground Water Elevation Data

TABLE A-1 Ground Water Elevation Data for October 15, 2001 through Present						
Date	MW-1	MW-2	MW-3	MW-4	Direction of Flow	Gradient (ft/ft)
10/15/01	2.51	2.52	2.54	2.49	S 51 ⁰ W	0.0005
01/20/02	5.52	5.52	5.54	5.50	S 30 ⁰ W	0.0013
05/16/02	4.54	4.51	4.57	4.45	S 4 ⁰ W/S 14 ⁰ W	0.001/0.002
07/13/02	3.68	3.67	3.72	3.64	S 19 ⁰ W	0.0011
10/25/02	3.17	3.24	3.30	3.30	inconclusive	inconclusive
02/01/03	6.62	6.61	6.65	6.62	inconclusive	inconclusive
04/23/03	6.85	6.86	6.90	6.82	S 85 ⁰ W	0.0009
07/25/03	5.13	5.16	5.17	5.12	N 50 ⁰ W	0.0008
11/26/03	3.88	3.88	3.91	3.87	S 71 ⁰ W	0.0004
01/14/04	5.77	5.78	5.81	5.76	N 86 ⁰ W	0.0006
04/07/04	7.81	7.80	7.84	7.78	S 53 ⁰ W	0.0009
08/13/04	4.98	5.04	4.99	4.93	inconclusive	inconclusive
10/13/04	4.42	4.43	4.45	4.39	S 86 ⁰ W/N 75 ⁰ W	0.0011/0.0005
01/11/05	6.63	6.64	6.66	6.62	N 76 ⁰ W	0.0005
04/26/05	7.68	7.67	7.72	7.66	S 58 ⁰ W	0.0008
07/12/05	6.60	6.61	6.63	6.57	S 87 ⁰ W	0.0008

A.2 Cumulative Soil Analytical Results

TABLE A-2 Analytical Results of Soil Samples Collected November 17, 2000 Analyzed by EPA Methods 8015(M), 8010B, and 8020A All Results in Parts Per Million (ppm)						
Sample	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes
DP-4-12	<10	<10	- - -	- - -	- - -	- - -
DP-5-12	<10	<10	- - -	- - -	- - -	- - -
DP-6-8	<10	<10	- - -	- - -	- - -	- - -
TW-1-24	<10	<10	- - -	- - -	- - -	- - -
TW-2-20	<10	<10	- - -	- - -	- - -	- - -
TW-3-20	310	250	- - -	- - -	- - -	- - -

- - - = Not analyzed for

TABLE A-3 Analytical Results of Soil Samples Collected During Monitoring Well Installation Analyzed by EPA Method 8260B and 8015(M) for TPHg, TPHd, and BTEX All Results in Parts Per Million (ppm)							
Sample	Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes
MW-1@15'	09/28/01	630	1,300	<0.050	<0.050	<0.050	<0.050
MW-1@25'	09/28/01	260	160	<0.050	<0.050	<0.050	<0.050
MW-2@10'	07/19/01	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
MW-2@25'	07/19/01	470	310	<0.050	<0.050	<0.050	<0.10
MW-3@15'	07/18/01	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
MW-3@25'	07/18/01	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
MW-4@15'	09/28/01	<1.0	<1.0	<0.0050	<0.0050	<0.0050	<0.0050
MW-4@25'	09/28/01	1,200	420	<0.050	<0.050	<0.050	<0.050

TPHg = Total petroleum hydrocarbons as gasoline

TPHd = Total petroleum hydrocarbons as diesel

TABLE A-4 Analytical Results of Soil Samples Collected During Monitoring Well Installation Analyzed by EPA Method 8260B for MTBE and Lead Scavengers All Results in Parts Per Million (ppm)				
Sample	Date	MTBE	1,2-DCA	EDB
MW-1@15'	09/28/01	<0.10	<0.050	<0.050
MW-1@25'	09/28/01	<0.050	<0.050	<0.050
MW-2@10'	07/19/01	<0.0050	<0.0050	<0.0050
MW-2@25'	07/19/01	<0.050	<0.050	<0.050
MW-3@15'	07/18/01	<0.0050	<0.0050	<0.0050
MW-3@25'	07/18/01	<0.0050	<0.0050	<0.0050
MW-4@15'	09/28/01	<0.0050	<0.0050	<0.0050
MW-4@25'	09/28/01	<0.050	<0.050	<0.050

MTBE = Methyl tert butyl ether
 1,2- DCA = 1,2- Dichloroethane
 EDB = 1,2-Dibromoethane (aka. Ethylene dibromide)

TABLE A-5 Analytical Results of Spoil Pile Collected July 26, 2001 Analyzed by EPA Methods 8260B, 8015(M), and 6010 All Results are in Parts Per Million (ppm)	
Analyte	Concentration
Total Petroleum Hydrocarbons as gasoline	<1.0
Total Petroleum Hydrocarbons as diesel	<1.0
Benzene	<0.0050
Toluene	<0.0050
Ethylbenzene	<0.0050
Xylenes	<0.0050
Volatile Organic Compounds	ND
Ketones	ND
Total Lead	20

ND = Not detected

TABLE A-6 Analysis Performed on Soil Samples Collected August 9, 2001					
Analysis	EPA Method	T-1N@10.5	T-1S@10.5	T8W@7.5	T8E@7.5
TPHg (Table A-7)	8260B	XX	XX	XX	XX
BTEX (Table A-7)	8260B	XX	XX	XX	XX
Seven Oxygenates	8260B	XX	XX	XX	XX
TPHd (Table A-7)	8015(M)	XX	XX	XX	XX
Lead Scavengers	8260B	XX	XX	XX	XX
TPHmo (Table A-7)	8015(M)	XX	XX		
HVOCs	8260B	XX	XX		
WET Lead	6010	XX	XX		
VOCs	8260B			XX	XX
Polynuclear Aromatics (PNAs)	8015B			XX	XX
Five LUFT Metals (Table A-8)	6010B			XX	XX
Oil & Grease	1664			XX	XX
Ethylene Glycol	8015B			XX	XX
Polychlorinated biphenyls (PCBs)	3545 and 8082			XX	XX

XX = Sample analyzed for

TABLE A-7 Analytical Results of Soil Samples Collected August 9, 2001 Analyzed by EPA Method 8260B for TPHg and BTEX; and by EPA Method and 8015(M) for TPHd and TPHmo All Results in Parts Per Million (ppm)							
Sample	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes
T- 1N@10.5	<1.0	19	<10	<0.0050	<0.0050	<0.0050	<0.0050
T- 1S@10.5	<1.0	<1.0	<10	<0.0050	<0.0050	<0.0050	<0.0050
T8W@7.5	<1.0	<1.0	- - -	<0.0050	<0.0050	<0.0050	<0.0050
T8E@7.5	<1.0	<1.0	- - -	<0.0050	<0.0050	<0.0050	<0.0050

TPHg = Total petroleum hydrocarbons as gasoline
 TPHd = Total petroleum hydrocarbons as diesel
 TPHmo = Total petroleum hydrocarbons as motor oil
 - - - = Not analyzed for

TABLE A-8 Analytical Results of Soil Samples Collected August 9, 2001 Analyzed by EPA Method 6010B for the Five LUFT Metals All Results in Parts Per Million (ppm)					
Sample	Cadmium	Chromium	Lead	Nickel	Zinc
T8W@7.5	<0.0500	<0.0500	1.3	60.36	23.71
T8E@7.5	<0.0500	0.0564	<0.100	0.32	46.05

TABLE A-9 Analytical Results of Soil Samples Collected January 14, 2004 Analyzed for TPHg, TPHd, TPHmo, BTEX, and MTBE All Results in Parts Per Million (ppm)								
Sample ID	TPHg	TPHd ¹	TPHmo	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE
GP-1@20'	<1.0	3.7	<10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
GP-2@20'	<1.0	2.6	<10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
GP-3@20'	<1.0	1.5	<10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
GP-4@20'	<1.0	3.1	<10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
GP-5@20'	<1.0	4.6	<10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
GP-6@20'	2.6	27	<10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
GP-7@20'	<1.0	2.1	<10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

TPHg = Total petroleum hydrocarbons as gasoline

TPHd = Total petroleum hydrocarbons as diesel

TPHmo = Total petroleum hydrocarbons as motor oil

MTBE = Methyl tert butyl ether

¹ Hydrocarbons do not exhibit a typical TPH as Diesel chromatographic pattern for samples GP-1@20', GP-2@20', GP-3@20', GP-4@20', GP-5@20', and GP-7@20'

A.3 Cumulative Ground Water Analytical Results

TABLE A-10 Analytical Results of Ground Water Samples Collected November 17, 2000 Analyzed by EPA Methods 8015(M), 8010B, and 8020A All Results in Parts Per Billion (ppb)									
Sample	TPHg	TPHd	Benzene	Toluene	Ethyl benzene	Xylenes	1,2-DCE	TCE	PCE
TW-1	- - -	- - -	1.2	ND	ND	ND	ND	ND	ND
TW-2	- - -	- - -	ND	ND	ND	12	3.5	6.4	0.82
TW-3	- - -	- - -	ND	310	80	720	ND	1.7	ND

TPHg = Total petroleum hydrocarbons as gasoline
 TPHd = Total petroleum hydrocarbons as diesel
 PCE = Tetrachloroethene
 - - - = Not analyzed for

1,2-DCA = 1,2-Dichloroethene
 TCE = Trichloroethene
 ND = Not detected

TABLE A-11 Analytical Results of Water Sample Collected July 26, 2001 from the 500 Gallon Tank Analyzed by EPA Methods 8260B, 8015(M), and 6010 All Results are in Parts Per Billion (ppb)	
Analyte	Concentration
Total Petroleum Hydrocarbons as gasoline	<50
Total Petroleum Hydrocarbons as diesel	<50
Total Petroleum Hydrocarbons as motor oil	<100
Benzene	<0.50
Toluene	<0.50
Ethylbenzene	<0.50
Xylenes	<0.50
Volatile Organic Compounds	ND
Ketones	ND

ND = Not detected

TABLE A-12 Analytical Results of Ground Water Samples Analyzed by EPA Method 8260B for TPHg, BTEX, and MTBE; and by EPA Method 8015(M) for TPHd All Results in Parts Per Billion (ppb)							
Well/Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-1							
10/15/01	13,000	<2,000 ¹	<1.0	<1.0	50	4.4	<1.0
01/20/02	5,600	<2,000 ¹	<0.50	<0.50	58	4.4	<0.50
05/16/02	4,800	<600 ¹	<0.50	<0.50	18	2.2	<0.50
07/13/02	4,800	<1,200 ¹	<0.50	<0.50	26	3.2	<1.0
10/25/02	5,300	<2,500 ¹	<1.0	<1.0	26	3.0	<1.0
02/01/03	5,000	<1,500 ¹	<2.0	<2.0	12	2.5	<2.0
04/23/03	6,800	<1,600 ¹	<1.5	<1.5	11	2.0	<1.5
07/25/03	5,300	<1,500 ¹	<0.50	<0.50	7.0	1.7	<0.50
11/26/03	4,500	<1,500 ¹	<1.5	<1.5	4.0	<1.5	<1.5
01/14/04	5,900	<2,000 ¹	<1.0	<1.0	5.3	1.9	<1.0
04/07/04	6,600	<1,500 ¹	<2.5	<2.5	4.0	<2.5	<2.5
08/13/04	6,500	<1,500 ¹	<1.5	<1.5	3.3	<1.5	<1.5
10/13/04	5,500	<1,500 ¹	<1.0	<1.0	2.8	1.6	<1.0
01/11/05	5,200	<1,500 ¹	<1.0	<1.0	2.7	1.0	<1.0
04/26/05	4,000	<1,500 ¹	<0.50	<0.50	2.3	0.86	<0.50
07/12/05	5,000	<1,500 ¹	<0.50	<0.50	2.8	0.85	<0.50
MW-2							
07/19/01	1,400	<1,000 ¹	<0.50	<0.50	<0.50	<0.50	<0.50
10/15/01	2,100	- - -	<0.50	<0.50	<0.50	<0.50	<0.50
01/20/02	1,000	<300 ¹	<0.50	<0.50	<0.50	<0.50	<0.50
05/16/02	930	<200 ¹	<0.50	<0.50	<0.50	<0.50	<0.50
07/13/02	930	<200 ¹	<0.50	<0.50	<0.50	<0.50	0.62
10/25/02	810	<400 ¹	<0.50	<0.50	<0.50	<0.50	0.52
02/01/03	630	<300 ¹	<0.50	<0.50	<0.50	<0.50	0.63
04/23/03	690	<250 ¹	<0.50	<0.50	<0.50	<0.50	0.61
07/25/03	450	<400 ¹	<0.50	<0.50	<0.50	<0.50	<0.80 ²
11/26/03	570	<300 ¹	<0.50	<0.50	<0.50	<0.50	<0.80 ²
01/14/04	620	<300 ¹	<0.50	<0.50	<0.50	<0.50	0.96

TABLE A-12 Analytical Results of Ground Water Samples Analyzed by EPA Method 8260B for TPHg, BTEX, and MTBE; and by EPA Method 8015(M) for TPHd All Results in Parts Per Billion (ppb)							
Well/Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
04/07/04	480	<200 ¹	<0.50	<0.50	<0.50	<0.50	0.82
08/13/04	460	<200 ¹	<0.50	<0.50	<0.50	<0.50	0.93
10/13/04	460	<200 ¹	<0.50	<0.50	<0.50	<0.50	1.0
01/11/05	400	<200 ¹	<0.50	<0.50	<0.50	<0.50	0.97
04/26/05	360	<200 ¹	<0.50	<0.50	<0.50	<0.50	0.75
07/12/05	440	<300 ¹	<0.50	<0.50	<0.50	<0.50	0.85
MW-3							
07/19/01	<50	<50	<0.50	<0.50	<0.50	<0.50	0.85
10/15/01	<50	- - -	<0.50	<0.50	<0.50	<0.50	0.98
01/20/02	<50	<50	<0.50	<0.50	<0.50	<0.50	1.0
05/16/02	<50	<50	<0.50	<0.50	<0.50	<0.50	1.1
07/13/02	<50	<50	<0.50	<0.50	<0.50	<0.50	1.3
10/25/02	<50	<50	<0.50	<0.50	<0.50	<0.50	1.2
02/01/03	<50	<50	<0.50	<0.50	<0.50	<0.50	1.4
04/23/03	<50	83	<0.50	<0.50	<0.50	<0.50	1.4
07/25/03	<50	<50	<0.50	<0.50	<0.50	<0.50	1.4
11/26/03	<50	<50	<0.50	<0.50	<0.50	<0.50	1.3
01/14/04	<50	72	<0.50	<0.50	<0.50	<0.50	1.9
04/07/04	<50	73	<0.50	<0.50	<0.50	<0.50	1.5
08/13/04	<50	<50	<0.50	<0.50	<0.50	<0.50	1.1
10/13/04	<50	<50	<0.50	<0.50	<0.50	<0.50	1.0
01/11/05	<50	<50	<0.50	<0.50	<0.50	<0.50	0.96
04/26/05	<50	<50	<0.50	<0.50	<0.50	<0.50	0.93
07/12/05	<50	<50	<0.50	<0.50	<0.50	<0.50	1.0
MW-4							
10/15/01	4,300	<800 ¹	<0.50	<0.50	<0.50	<0.50	<0.50
01/20/02	2,000	<500 ¹	<0.50	<0.50	<0.50	<0.50	<0.50
05/16/02	1,900	<200 ¹	<0.50	<0.50	<0.50	<0.50	<0.50
07/13/02	2,200	<400 ¹	<0.50	<0.50	<0.50	<0.50	<0.50

TABLE A-12 Analytical Results of Ground Water Samples Analyzed by EPA Method 8260B for TPHg, BTEX, and MTBE; and by EPA Method 8015(M) for TPHd All Results in Parts Per Billion (ppb)							
Well/Date	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
10/25/02	1,900	<600 ¹	<0.50	<0.50	<0.50	<0.50	0.74
02/01/03	1,800	<400 ¹	<0.50	<0.50	<0.50	<0.50	<1.0 ²
04/23/03	1,700	<400 ¹	<0.50	<0.50	<0.50	<0.50	<0.50
07/25/03	1,400	<300 ¹	<0.50	<0.50	<0.50	<0.50	<0.50
11/26/03	1,600	<300 ¹	<0.50	<0.50	<0.50	<0.50	0.76
01/14/04 ³	1,600	<300 ¹	<0.50	<0.50	<0.50	<0.50	0.69
04/07/04	1,400	<300 ¹	<0.50	<0.50	<0.50	<0.50	<0.50
08/13/04	1,300	<200 ¹	<0.50	<0.50	<0.50	<0.50	0.81
10/13/04	1,200	<200 ¹	<0.50	<0.50	<0.50	<0.50	1.0
01/11/05	1,700	<200 ¹	<0.50	<0.50	<0.50	<0.50	0.86
04/26/05	1,100	<300 ¹	<0.50	<0.50	<0.50	<0.50	0.64
07/12/05	1,200	<300 ¹	<0.50	<0.50	<0.50	<0.50	0.72

TPHg = Total petroleum hydrocarbons as gasoline

MTBE = Methyl tert butyl ether

TPHd = Total petroleum hydrocarbons as diesel

¹ Laboratory note: "The Method Reporting Limit for TPH as Diesel has been increased due to interference from Gasoline-Range Hydrocarbons"

² Laboratory note: The Method Reporting Limit for MTBE has been increased due to the presence of an interfering compound...."

³ Sample was also analyzed by EPA Method 8015(M) for TPHmo. Concentration of TPHmo was < 100 ppb.

TABLE A-13 Analytical Results of Ground Water Samples Analyzed by EPA Method 8260B for the Five Oxygenates and Lead Scavengers All Results in Parts Per Billion (ppb)							
Well/Date	MTBE	DIPE	ETBE	TAME	TBA	1,2-DCA	EDB
MW-1							
10/15/01	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0
MW-2							
07/19/01	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50

TABLE A-13 Analytical Results of Ground Water Samples Analyzed by EPA Method 8260B for the Five Oxygenates and Lead Scavengers All Results in Parts Per Billion (ppb)							
Well/Date	MTBE	DIPE	ETBE	TAME	TBA	1,2-DCA	EDB
MW-3							
07/19/01	0.85	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50
MW-4							
10/15/01	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50

MTBE = Methyl tert butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tert butyl ether

TAME = Tert amyl methyl ether

TBA = Tert butanol

1,2-DCA = 1,2- Dichloroethane

EDB = 1,2-Dibromoethane (aka. Ethylene dibromide)

¹ Laboratory note: The Method Reporting Limit for MTBE has been increased due to the presence of an interfering compound....”

TABLE A-14 Analytical Results of Ground Water Samples Collected January 14, 2004 Analyzed by EPA Method 8260B for TPHg, BTEX, and MTBE; and by EPA Method 8015(M) for TPHd and TPHmo All Results in Parts Per Billion (ppb)								
Sample ID	TPHg	TPHd	TPHmo	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
GP-1	<50	92	<100	<0.50	<0.50	<0.50	<0.50	<0.50
GP-2	200	380	180	<0.50	<0.50	<0.50	<0.50	<0.50
GP-3	<50	240	530 ²	<0.50	<0.50	<0.50	<0.50	<0.50
GP-4	<50	<50	<100	<0.50	<0.50	<0.50	<0.50	<0.50
GP-5	<50	130 ¹	130	<0.50	<0.50	<0.50	<0.50	1.1
GP-6	180	660	170	<0.50	<0.50	<0.50	<0.50	<0.50
GP-7	<50	270 ¹	1,400	<0.50	<0.50	<0.50	<0.50	<0.50

TPHg = Total petroleum hydrocarbons as gasoline

TPHd = Total petroleum hydrocarbons as diesel

TPHmo = Total petroleum hydrocarbons as motor oil

MTBE = Methyl tert butyl ether

¹ Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for samples GP-5 and GP-7

² Hydrocarbons reported as TPH as Motor Oil do not exhibit a typical Motor Oil chromatographic pattern for sample GP-3

TABLE A-15 Positive Analytical Results of Ground Water Samples Analyzed by EPA Method 8260B for Volatile Organic Compounds All Results in Parts Per Billion (ppb)			
Well/Date	cis-1,2- Dichloroethene	Trichloroethene	Vinyl Chloride
MW-1			
10/15/01	<1.0	<1.0	1.2
01/20/02	1.1	<2.0 ¹	1.2
05/16/02	1.6	<1.0 ¹	1.0
07/13/02	1.6	<2.0 ¹	<1.0
10/25/02	1.3	<1.0	<1.0
02/01/03	<2.0	<2.0	<2.0
04/23/03	<1.5	<1.5	<1.5
07/25/03	0.82	<2.0 ¹	<0.50
11/26/03	<1.5	<5.0 ¹	<1.5
01/14/04	<1.0	<1.0	<1.0
04/07/04	<2.5	<2.5	<2.5
08/13/04	<1.5	<1.5	<1.5
10/13/04	<1.0	<1.0	<1.0
01/11/05	<1.0	<1.0	<1.0
04/26/05	<0.50	<0.50	<0.50
07/12/05	0.52	<2.0	<0.50
MW-2			
07/19/01	2.7	2.2	<0.50
10/15/01	4.1	3.5	<0.50
01/20/02	3.0	3.3	<0.50
05/16/02	2.4	3.1	<0.50
07/13/02	2.9	3.5	<0.50
10/25/02	2.6	4.4	<0.50
02/01/03	2.0	4.3	<0.50
04/23/03	2.0	3.6	<0.50
07/25/03	2.0	2.4	<0.50
11/26/03	2.2	3.0	<0.50
01/14/04	2.0	3.5	<0.50
04/07/04	1.6	3.2	<0.50

TABLE A-15 Positive Analytical Results of Ground Water Samples Analyzed by EPA Method 8260B for Volatile Organic Compounds All Results in Parts Per Billion (ppb)			
Well/Date	cis-1,2- Dichloroethene	Trichloroethene	Vinyl Chloride
08/13/04	1.5	1.9	<0.50
10/13/04	1.6	2.2	<0.50
01/11/05	1.5	2.1	<0.50
04/26/05	1.0	1.7	<0.50
07/12/05	1.4	2.5	<0.50
MW-3			
07/19/01	<0.50	3.5	<0.50
10/15/01	0.52	4.0	<0.50
01/20/02	0.59	4.5	<0.50
05/16/02	0.64	5.3	<0.50
07/13/02	0.82	6.1	<0.50
10/25/02	0.76	6.6	<0.50
02/01/03	0.64	5.9	<0.50
04/23/03	0.53	5.6	<0.50
07/25/03	0.61	5.2	<0.50
11/26/03	0.67	5.1	<0.50
01/14/04	0.73	5.0	<0.50
04/07/04	0.63	4.9	<0.50
08/13/04	<0.50	3.1	<0.50
10/13/04	<0.50	3.2	<0.50
01/11/05	<0.50	2.9	<0.50
04/26/05	<0.50	2.8	<0.50
07/12/05	<0.50	3.3	<0.50
MW-4			
10/15/01	1.5	<0.50	0.59
01/20/02	0.87	<2.0 ¹	0.72
05/16/02	1.2	<2.0 ¹	0.60
07/13/02	2.2	<2.0 ¹	<1.0 ¹
10/25/02	2.9	<3.0 ¹	<0.50
02/01/03	1.7	<2.0 ¹	<0.50

TABLE A-15 Positive Analytical Results of Ground Water Samples Analyzed by EPA Method 8260B for Volatile Organic Compounds All Results in Parts Per Billion (ppb)			
Well/Date	cis-1,2- Dichloroethene	Trichloroethene	Vinyl Chloride
04/23/03	1.3	<2.0 ¹	0.65
07/25/03	2.6	0.95	0.62
11/26/03	2.6	<2.0 ¹	<0.50
01/14/04	1.4	<2.0 ¹	0.62
04/07/04	1.5	<0.50	0.59
08/13/04	1.9	<0.50	<0.50
10/13/04	2.1	0.64	<0.50
01/11/05	1.2	0.67	<0.50
04/26/05	0.80	<0.50	<0.50
07/12/05	1.6	<1.0	0.51

¹ Laboratory Case Narrative reported the Method Reporting Limit had been increased due to a presence of an interfering compound.

TABLE A-16 Positive Analytical Results¹ of Ground Water Samples Collected January 14, 2004 Analyzed for Volatile Halocarbons All Results in Parts Per Billion (ppb)				
Sample ID	cis-1,2- Dichloroethene	Trichloroethene	Vinyl Chloride	Tetrachloroethene
GP-1	1.0	3.8	<0.50	<0.50
GP-2	0.81	<0.50	<0.50	<0.50
GP-3	<0.50	<0.50	<0.50	<0.50
GP-4	<0.50	<0.50	<0.50	<0.50
GP-5	0.94	7.2	<0.50	5.2
GP-6	2.7	0.91	<0.50	<0.50
GP-7	<0.50	5.1	<0.50	<0.50

TABLE A-17 Analytical Results for Water Samples Collected on April 26, 2005 Analyzed by Methods Indicated for Geochemical and Biological Indicators All Results in Parts Per Million (ppm)								
Sample	DO Before Purge	DO After Purge	Nitrate EPA 300.0	Nitrite EPA 300.0	Sulfate EPA 300.0	TDI EPA 200.7	Ferrous Iron (Fe ⁺²) SM 3500	Alkalinity as CaCO ₃ SM 2320B
MW-1	1.90	0.49	<0.10	<0.10	3.4	4.30	4.3	530
MW-2	2.19	1.15	1.5	<0.10	57	<0.100	<0.10	400
MW-3	2.14	0.98	4.1	<0.10	57	<0.100	<0.10	360
MW-4	2.23	0.44	<0.10	<0.10	16	0.837	2.0	460

DO = Dissolved Oxygen: readings are in milligram per liter (mg/L)
 TDI = Total Dissolved Iron

TABLE A-18 Analytical Results for Water Samples Collected on April 26, 2005 Analyzed by Methods Indicated for Organic Nutrient Indicators All Results in Parts Per Million (ppm)				
Sample ID	Ammonia as Nitrogen EPA 350.2	Ortho-Phosphate EPA 300.0	Total Kjeldahl Nitrogen EPA 351.3	Potassium EPA 200.7
MW-1	<0.10	<0.10	0.56	2.49
MW-2	<0.10	<0.10	<0.50	3.84
MW-3	<0.10	0.11	<0.50	3.87
MW-4	<0.10	<0.10	<0.50	2.14

TABLE A-19 Analytical Results of Water Samples Collected April 26, 2005 Analyzed for Total Heterotrophic Bacteria All Results in Colony Forming Units per Milliliter (cfu/ml)			
Sample ID	Sample Date	Target Hydrocarbons Tested	Total Heterotrophs (cfu/ml)
MW-1	04/26/05	Gasoline/Diesel	4×10^3
MW-2	04/26/05	Gasoline/Diesel	2×10^3
MW-3	04/26/05	Gasoline/Diesel	3×10^3
MW-4	04/26/05	Gasoline/Diesel	3×10^3
Sterile Water	04/27/05	Gasoline/Diesel	0
Air Control	04/27/05	Gasoline/Diesel	0
Positive Control	04/27/05	Gasoline/Diesel	8×10^9

cfu/ml = colony forming units per milliliter

Laboratory footnote: Reporting Limit for enumeration data is 1.0×10^1 cfu/ml

APPENDIX B

Monitoring Well Purge Data Sheets

APPLIED ENGINEERING AND GEOLOGY, INC.
MONITORING WELL PURGE DATA SHEET

Project Name: Discount Tire Date: 04/26/05
 Project Location: 1200 I Street
 Sacramento, California
 Performed By: Mike Bambino

Well Number: MW-1 Well Location: Northwest corner of lot
 Depth to Water: 14.15 @ 0916 Depth of Well: 24.87 ft
 Product Thickness: 0.00 in Water Thickness: 10.72 ft
 Well Diameter: 2 in Casing Elevation: 21.83 ft
 Screen Length 15 feet Ground Water Elevation: 7.68 ft

Calculated Volume of Water to be Purged: 5.36 gallons
 Purging Information: Purge Time: Start: 1050 Date Purged: 04/26/05
 End: 1105
 Actual Volume Purged: 5.5 gallons

Dissolved Oxygen Before Purge: 1.90 mg/L After Sampling: 0.49 mg/L
 Depth To Water After Purge: 14.31 ft
 Notable Sheen: None

Time	Volume (gallons)	pH	Temp (deg. C)	Conductivity (μ S)	ORP (mV)
1053	1.0	6.90	20.9	1064	-151
1056	2.0	6.82	20.9	1058	-103
1101	4.0	6.83	20.8	1061	-101
1105	5.5	6.84	20.8	1060	-104

Date Sampled: 04/26/05
 Time Sampled: 1302
 Sampler Type: Disposable Polyethylene Bailer
 Sample Containers: 5 - 40 ml VOAs
 Tests Requested: TPHg, TPHd, BTEX, MTBE, Volatile Halocarbons
 Preservatives: HCl, Ice
 Analytical Lab: KIFF ANALYTICAL
 Comments: Green in color, strong unidentifiable odor

APPLIED ENGINEERING AND GEOLOGY, INC.
MONITORING WELL PURGE DATA SHEET

Project Name: Discount Tire Date: 04/26/05
 Project Location: 1200 I Street
 Sacramento, California
 Performed By: Mike Bambino

Well Number: MW-2 Well Location: In front of sales room
 Depth to Water: 14.68 @ 0910 Depth of Well: 25.21 ft
 Product Thickness: 0.00 in Water Thickness: 10.53 ft
 Well Diameter: 2 in Casing Elevation: 22.35 ft
 Screen Length 15 feet Ground Water Elevation: 7.67 ft

Calculated Volume of Water to be Purged: 5.26 gallons
 Purging Information: Purge Time: Start: 1006 Date Purged: 04/26/05
 End: 1019
 Actual Volume Purged: 5.5 gallons

Dissolved Oxygen Before Purge: 2.19 mg/L After Sampling: 1.15 mg/L
 Depth To Water After Purge: 14.94 ft
 Notable Sheen: None

Time	Volume (gallons)	pH	Temp (deg. C)	Conductivity (μ S)	ORP (mV)
1008	1.0	6.96	20.3	944.5	131
1011	2.0	6.78	20.1	946.4	112
1015	4.0	6.78	20.1	938.9	36
1019	5.5	6.77	20.1	937.9	13

Date Sampled: 04/26/05
 Time Sampled: 1205
 Sampler Type: Disposable Polyethylene Bailer
 Sample Containers: 5 - 40 ml VOAs
 Tests Requested: TPHg, TPHd, BTEX, MTBE, Volatile Halocarbons
 Preservatives: HCl, Ice
 Analytical Lab: KIFF ANALYTICAL
 Comments: Green in color, strong unidentifiable odor

APPLIED ENGINEERING AND GEOLOGY, INC.
MONITORING WELL PURGE DATA SHEET

Project Name: Discount Tire Date: 04/26/05
Project Location: 1200 I Street
Sacramento, California
Performed By: Mike Bambino

Well Number: MW-3 Well Location: North side of lot
Depth to Water: 14.38 @ 0923 Depth of Well: 25.19 ft
Product Thickness: 0.00 in Water Thickness: 10.81 ft
Well Diameter: 2 in Casing Elevation: 22.10 ft
Screen Length 15 feet Ground Water Elevation: 7.72 ft

Calculated Volume of Water to be Purged: 5.40 gallons
Purging Information: Purge Time: Start: 0944 Date Purged: 04/26/05
End: 0958
Actual Volume Purged: 5.5 gallons

Dissolved Oxygen Before Purge: 2.14 mg/L After Sampling: 0.98 mg/L
Depth To Water After Purge: 14.54 ft
Notable Sheen: None

Time	Volume (gallons)	pH	Temp (deg. C)	Conductivity (μ S)	ORP (mV)
0947	1.0	6.47	20.4	1014	176
0949	2.0	6.61	20.4	942.3	146
0954	4.0	6.62	20.4	924.2	145
0958	5.5	6.63	20.5	916.2	150

Date Sampled: 04/26/05
Time Sampled: 1135
Sampler Type: Disposable Polyethylene Bailer
Sample Containers: 5 - 40 ml VOAs
Tests Requested: TPHg, TPHd, BTEX, MTBE, Volatile Halocarbons
Preservatives: HCl, Ice
Analytical Lab: KIFF ANALYTICAL
Comments: Brown in color

APPLIED ENGINEERING AND GEOLOGY, INC.
MONITORING WELL PURGE DATA SHEET

Project Name: Discount Tire Date: 04/26/05
Project Location: 1200 I Street
Sacramento, California
Performed By: Mike Bambino

Well Number: MW-4 Well Location: Southwest corner of parking lot
Depth to Water: 14.37 @ 0913 Depth of Well: 24.74 ft
Product Thickness: 0.00 in Water Thickness: 10.37 ft
Well Diameter: 2 in Casing Elevation: 22.03 ft
Screen Length: 15 feet Ground Water Elevation: 7.66 ft

Calculated Volume of Water to be Purged: 5.18 gallons
Purging Information: Purge Time: Start: 1028 Date Purged: 04/26/05
End: 1042
Actual Volume Purged: 5.25 gallons

Dissolved Oxygen Before Purge: 2.23 mg/L After Sampling: 0.44 mg/L
Depth To Water After Purge: 14.56 ft
Notable Sheen: None

Time	Volume (gallons)	pH	Temp (deg. C)	Conductivity (μ S)	ORP (mV)
1031	1.0	7.00	19.9	949.2	-44
1034	2.0	6.84	19.5	952.4	-54
1039	4.0	6.88	19.8	947.2	-66
1042	5.25	6.89	19.7	948.5	-71

Date Sampled: 04/26/05
Time Sampled: 1234
Sampler Type: Disposable Polyethylene Bailer
Sample Containers: 5 - 40 ml VOAs
Tests Requested: TPHg, TPHd, BTEX, MTBE, Volatile Halocarbons
Preservatives: HCl, Ice
Analytical Lab: KIFF ANALYTICAL
Comments: Black in color, strong unidentifiable odor

APPLIED ENGINEERING AND GEOLOGY, INC.
MONITORING WELL PURGE DATA SHEET

Project Name: Discount Tire Date: 07/12/05
Project Location: 1200 I Street
Sacramento, California
Performed By: Mike Bambino

Well Number: MW-1 Well Location: Northwest corner of lot
Depth to Water: 15.23 @ 0940 Depth of Well: 24.87 ft
Product Thickness: 0.00 in Water Thickness: 9.64 ft
Well Diameter: 2 in Casing Elevation: 21.83 ft
Screen Length 15 feet Ground Water Elevation: 6.60 ft

Calculated Volume of Water to be Purged: 4.82 gallons
Purging Information: Purge Time: Start: 1113 Date Purged: 07/12/05
End: 1126
Actual Volume Purged: 5 gallons

Dissolved Oxygen Before Purge: 1.89 mg/L After Sampling: 0.61 mg/L
Depth To Water After Purge: 15.35 ft
Notable Sheen: None

Time	Volume (gallons)	pH	Temp (deg. C)	Conductivity (μ S)	ORP (mV)
1115	1.0	7.03	26.0	989.5	-134
1118	2.0	6.92	23.8	1004	-101
1120	3.0	6.93	23.4	1002	-102
1126	5.0	6.95	23.6	999.4	-103

Date Sampled: 07/12/05
Time Sampled: 1229
Sampler Type: Disposable Polyethylene Bailer
Sample Containers: 5 - 40 ml VOAs
Tests Requested: TPHg, TPHd, BTEX, MTBE, Volatile Halocarbons
Preservatives: HCl, Ice
Analytical Lab: KIFF ANALYTICAL
Comments: Strong unidentifiable odor

APPLIED ENGINEERING AND GEOLOGY, INC.
MONITORING WELL PURGE DATA SHEET

Project Name: Discount Tire Date: 07/12/05
 Project Location: 1200 I Street
 Sacramento, California
 Performed By: Mike Bambino

Well Number: MW-2 Well Location: In front of sales room
 Depth to Water: 15.74 @ 0935 Depth of Well: 25.21 ft
 Product Thickness: 0.00 in Water Thickness: 9.47 ft
 Well Diameter: 2 in Casing Elevation: 22.35 ft
 Screen Length 15 feet Ground Water Elevation: 6.61 ft

Calculated Volume of Water to be Purged: 4.73 gallons
 Purging Information: Purge Time: Start: 1025 Date Purged: 07/12/05
 End: 1037
 Actual Volume Purged: 5 gallons

Dissolved Oxygen Before Purge: 2.25 mg/L After Sampling: 0.74 mg/L
 Depth To Water After Purge: 15.96 ft
 Notable Sheen: None

Time	Volume (gallons)	pH	Temp (deg. C)	Conductivity (μ S)	ORP (mV)
1027	1.0	6.96	23.1	892.3	-24
1029	2.0	6.82	22.1	889.1	-27
1032	3.0	6.83	21.6	887.6	-31
1037	5.0	6.84	21.7	884.5	-38

Date Sampled: 07/12/05
 Time Sampled: 1201
 Sampler Type: Disposable Polyethylene Bailer
 Sample Containers: 5 - 40 ml VOAs
 Tests Requested: TPHg, TPHd, BTEX, MTBE, Volatile Halocarbons
 Preservatives: HCl, Ice
 Analytical Lab: KIFF ANALYTICAL
 Comments: Brown in color, strong unidentifiable odor

APPLIED ENGINEERING AND GEOLOGY, INC.
MONITORING WELL PURGE DATA SHEET

Project Name: Discount Tire Date: 07/12/05
Project Location: 1200 I Street
Sacramento, California
Performed By: Mike Bambino

Well Number: MW-3 Well Location: North side of lot
Depth to Water: 15.47 @ 0933 Depth of Well: 25.19 ft
Product Thickness: 0.00 in Water Thickness: 9.72 ft
Well Diameter: 2 in Casing Elevation: 22.10 ft
Screen Length 15 feet Ground Water Elevation: 6.63 ft

Calculated Volume of Water to be Purged: 4.86 gallons
Purging Information: Purge Time: Start: 1002 Date Purged: 07/12/05
End: 1014
Actual Volume Purged: 5 gallons

Dissolved Oxygen Before Purge: 2.39 mg/L After Sampling: 0.81 mg/L
Depth To Water After Purge: 15.65 ft
Notable Sheen: None

Time	Volume (gallons)	pH	Temp (deg. C)	Conductivity (μ S)	ORP (mV)
1004	1.0	6.57	22.8	867.4	140
1007	2.0	6.58	22.4	848.4	144
1010	3.0	6.61	22.0	850.5	146
1014	5.0	6.64	21.9	846.1	149

Date Sampled: 07/12/05
Time Sampled: 1147
Sampler Type: Disposable Polyethylene Bailer
Sample Containers: 5 - 40 ml VOAs
Tests Requested: TPHg, TPHd, BTEX, MTBE, Volatile Halocarbons
Preservatives: HCl, Ice
Analytical Lab: KIFF ANALYTICAL
Comments: None

APPLIED ENGINEERING AND GEOLOGY, INC.
MONITORING WELL PURGE DATA SHEET

Project Name: Discount Tire Date: 07/12/05
 Project Location: 1200 I Street
 Sacramento, California
 Performed By: Mike Bambino

Well Number: MW-4 Well Location: Southwest corner of parking lot
 Depth to Water: 15.46 @ 0937 Depth of Well: 24.74 ft
 Product Thickness: 0.00 in Water Thickness: 9.28 ft
 Well Diameter: 2 in Casing Elevation: 22.03 ft
 Screen Length: 15 feet Ground Water Elevation: 6.57 ft

Calculated Volume of Water to be Purged: 4.62 gallons
 Purging Information: Purge Time: Start: 1047 Date Purged: 07/12/05
 End: 1101
 Actual Volume Purged: 5 gallons

Dissolved Oxygen Before Purge: 1.94 mg/L After Sampling: 0.69 mg/L
 Depth To Water After Purge: 15.68 ft
 Notable Sheen: None

Time	Volume (gallons)	pH	Temp (deg. C)	Conductivity (μ S)	ORP (mV)
1050	1.0	7.26	24.2	845.7	-164
1053	2.0	6.98	22.3	851.7	-74
1056	3.0	7.01	21.4	863.9	-83
1101	5.0	7.00	22.0	861.8	-79

Date Sampled: 07/12/05
 Time Sampled: 1214
 Sampler Type: Disposable Polyethylene Bailer
 Sample Containers: 5 - 40 ml VOAs
 Tests Requested: TPHg, TPHd, BTEX, MTBE, Volatile Halocarbons
 Preservatives: HCl, Ice
 Analytical Lab: KIFF ANALYTICAL
 Comments: Black in color, strong unidentifiable odor

APPENDIX C

Certified Laboratory Analytical Reports



Report Number : 43429

Date : 5/3/2005

Stan Walker
Applied Engineering & Geology, Inc.
P. O. Box 247
Lincoln, CA 95648

Subject : 4 Water Samples
Project Name : Discount Tire
Project Number :

Dear Mr. Walker,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 43429

Date : 5/3/2005

Subject : 4 Water Samples
Project Name : Discount Tire
Project Number :

Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for samples MW-1, MW-2 and MW-4.

Approved By:

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800



Report Number : 43429

Date : 5/3/2005

Project Name : Discount Tire

Project Number :

Sample : MW-1

Matrix : Water

Lab Number : 43429-01

Sample Date :4/26/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 1500	1500	ug/L	M EPA 8015	4/30/2005
Octacosane (Diesel Surrogate)	101		% Recovery	M EPA 8015	4/30/2005

Sample : MW-2

Matrix : Water

Lab Number : 43429-02

Sample Date :4/26/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 200	200	ug/L	M EPA 8015	4/30/2005
Octacosane (Diesel Surrogate)	104		% Recovery	M EPA 8015	4/30/2005

Sample : MW-3

Matrix : Water

Lab Number : 43429-03

Sample Date :4/26/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	4/30/2005
Octacosane (Diesel Surrogate)	105		% Recovery	M EPA 8015	4/30/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 43429

Date : 5/3/2005

Project Name : Discount Tire

Project Number :

Sample : MW-4

Matrix : Water

Lab Number : 43429-04

Sample Date :4/26/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 300	300	ug/L	M EPA 8015	4/30/2005
Octacosane (Diesel Surrogate)	103		% Recovery	M EPA 8015	4/30/2005

Approved By:

Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 43429

Date : 5/3/2005

Sample : MW-1

Project Name : Discount Tire

Project Number :

Lab Number : 43429-01

Date Analyzed : 4/28/2005, 4/27/2005

Matrix : Water

Sample Date : 4/26/2005

Analysis Method: EPA 8260B

Parameter	Measured Value	MRL ¹	Units
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	2.3	0.50	ug/L
Total Xylenes	0.86	0.50	ug/L
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L
TPH as Gasoline	4000	100	ug/L
Chloromethane	< 0.50	0.50	ug/L
Vinyl Chloride	< 0.50	0.50	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 0.50	0.50	ug/L
Trichlorofluoromethane	< 0.50	0.50	ug/L
1,1-Dichloroethene	< 0.50	0.50	ug/L
Methylene Chloride	< 5.0	5.0	ug/L
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L
1,1-Dichloroethane	< 0.50	0.50	ug/L
cis-1,2-Dichloroethene	< 0.50	0.50	ug/L
Chloroform	< 0.50	0.50	ug/L
1,1,1-Trichloroethane	< 0.50	0.50	ug/L
1,2-Dichloroethane	< 0.50	0.50	ug/L
Carbon Tetrachloride	< 0.50	0.50	ug/L
Trichloroethene	< 0.50	0.50	ug/L
1,2-Dichloropropane	< 0.50	0.50	ug/L
Bromodichloromethane	< 0.50	0.50	ug/L
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L
1,1,2-Trichloroethane	< 0.50	0.50	ug/L
Tetrachloroethene	< 0.50	0.50	ug/L
Dibromochloromethane	< 0.50	0.50	ug/L
Chlorobenzene	< 0.50	0.50	ug/L
Bromoform	< 0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L
1,3-Dichlorobenzene	< 0.50	0.50	ug/L
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L

Parameter	Measured Value	MRL ¹	Units
Toluene - d8 (Surr)	93.5		% Recovery
4-Bromofluorobenzene (Surr)	95.4		% Recovery
Dibromofluoromethane (Surr)	94.0		% Recovery
1,2-Dichloroethane-d4 (Surr)	91.6		% Recovery

1) MRL = Method reporting limit

Approved By:

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800


Joel Kiff



Report Number : 43429

Date : 5/3/2005

Sample : MW-2

Project Name : Discount Tire

Project Number :

Lab Number : 43429-02

Date Analyzed : 4/27/2005

Matrix : Water

Sample Date : 4/26/2005

Analysis Method: EPA 8260B

Parameter	Measured Value	MRL ¹	Units
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	< 0.50	0.50	ug/L
Total Xylenes	< 0.50	0.50	ug/L

Methyl-t-butyl ether (MTBE) 0.75 0.50 ug/L

TPH as Gasoline 360 50 ug/L

Chloromethane	< 0.50	0.50	ug/L
Vinyl Chloride	< 0.50	0.50	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 0.50	0.50	ug/L
Trichlorofluoromethane	< 0.50	0.50	ug/L
1,1-Dichloroethene	< 0.50	0.50	ug/L
Methylene Chloride	< 5.0	5.0	ug/L
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L
1,1-Dichloroethane	< 0.50	0.50	ug/L
cis-1,2-Dichloroethene	1.0	0.50	ug/L
Chloroform	< 0.50	0.50	ug/L
1,1,1-Trichloroethane	< 0.50	0.50	ug/L
1,2-Dichloroethane	< 0.50	0.50	ug/L
Carbon Tetrachloride	< 0.50	0.50	ug/L
Trichloroethene	1.7	0.50	ug/L
1,2-Dichloropropane	< 0.50	0.50	ug/L
Bromodichloromethane	< 0.50	0.50	ug/L
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L
1,1,2-Trichloroethane	< 0.50	0.50	ug/L
Tetrachloroethene	< 0.50	0.50	ug/L
Dibromochloromethane	< 0.50	0.50	ug/L
Chlorobenzene	< 0.50	0.50	ug/L
Bromoform	< 0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L
1,3-Dichlorobenzene	< 0.50	0.50	ug/L
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L

Parameter	Measured Value	MRL ¹	Units
Toluene - d8 (Surr)	101		% Recovery
4-Bromofluorobenzene (Surr)	96.1		% Recovery
Dibromofluoromethane (Surr)	104		% Recovery
1,2-Dichloroethane-d4 (Surr)	102		% Recovery

1) MRL = Method reporting limit

Approved By:

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Joel Kiff



Report Number : 43429

Date : 5/3/2005

Sample : MW-3

Project Name : Discount Tire

Project Number :

Lab Number : 43429-03

Date Analyzed : 4/27/2005

Matrix : Water

Sample Date : 4/26/2005

Analysis Method: EPA 8260B

Parameter	Measured Value	MRL ¹	Units
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	< 0.50	0.50	ug/L
Total Xylenes	< 0.50	0.50	ug/L
Methyl-t-butyl ether (MTBE)	0.93	0.50	ug/L
TPH as Gasoline	< 50	50	ug/L
Chloromethane	< 0.50	0.50	ug/L
Vinyl Chloride	< 0.50	0.50	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 0.50	0.50	ug/L
Trichlorofluoromethane	< 0.50	0.50	ug/L
1,1-Dichloroethene	< 0.50	0.50	ug/L
Methylene Chloride	< 5.0	5.0	ug/L
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L
1,1-Dichloroethane	< 0.50	0.50	ug/L
cis-1,2-Dichloroethene	< 0.50	0.50	ug/L
Chloroform	< 0.50	0.50	ug/L
1,1,1-Trichloroethane	< 0.50	0.50	ug/L
1,2-Dichloroethane	< 0.50	0.50	ug/L
Carbon Tetrachloride	< 0.50	0.50	ug/L
Trichloroethene	2.8	0.50	ug/L
1,2-Dichloropropane	< 0.50	0.50	ug/L
Bromodichloromethane	< 0.50	0.50	ug/L
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L
1,1,2-Trichloroethane	< 0.50	0.50	ug/L
Tetrachloroethene	< 0.50	0.50	ug/L
Dibromochloromethane	< 0.50	0.50	ug/L
Chlorobenzene	< 0.50	0.50	ug/L
Bromoform	< 0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L
1,3-Dichlorobenzene	< 0.50	0.50	ug/L
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L

Parameter	Measured Value	MRL ¹	Units
Toluene - d8 (Surr)	98.6		% Recovery
4-Bromofluorobenzene (Surr)	94.4		% Recovery
Dibromofluoromethane (Surr)	106		% Recovery
1,2-Dichloroethane-d4 (Surr)	105		% Recovery

1) MRL = Method reporting limit

Approved By:

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800


Joel Kiff



Report Number : 43429

Date : 5/3/2005

Sample : MW-4

Project Name : Discount Tire

Project Number :

Lab Number : 43429-04

Date Analyzed : 4/27/2005, 4/28/2005

Matrix : Water

Sample Date : 4/26/2005

Analysis Method: EPA 8260B

Parameter	Measured Value	MRL ¹	Units
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	< 0.50	0.50	ug/L
Total Xylenes	< 0.50	0.50	ug/L

Methyl-t-butyl ether (MTBE) 0.64 0.50 ug/L

TPH as Gasoline 1100 50 ug/L

Chloromethane	< 0.50	0.50	ug/L
Vinyl Chloride	< 0.50	0.50	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 0.50	0.50	ug/L
Trichlorofluoromethane	< 0.50	0.50	ug/L
1,1-Dichloroethene	< 0.50	0.50	ug/L
Methylene Chloride	< 5.0	5.0	ug/L
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L
1,1-Dichloroethane	< 0.50	0.50	ug/L
cis-1,2-Dichloroethene	0.80	0.50	ug/L
Chloroform	< 0.50	0.50	ug/L
1,1,1-Trichloroethane	< 0.50	0.50	ug/L
1,2-Dichloroethane	< 0.50	0.50	ug/L
Carbon Tetrachloride	< 0.50	0.50	ug/L
Trichloroethene	< 0.50	0.50	ug/L
1,2-Dichloropropane	< 0.50	0.50	ug/L
Bromodichloromethane	< 0.50	0.50	ug/L
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L
1,1,2-Trichloroethane	< 0.50	0.50	ug/L
Tetrachloroethene	< 0.50	0.50	ug/L
Dibromochloromethane	< 0.50	0.50	ug/L
Chlorobenzene	< 0.50	0.50	ug/L
Bromoform	< 0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L
1,3-Dichlorobenzene	< 0.50	0.50	ug/L
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L

Parameter	Measured Value	MRL ¹	Units
Toluene - d8 (Surr)	103		% Recovery
4-Bromofluorobenzene (Surr)	98.2		% Recovery
Dibromofluoromethane (Surr)	104		% Recovery
1,2-Dichloroethane-d4 (Surr)	100		% Recovery

1) MRL = Method reporting limit

Approved By:

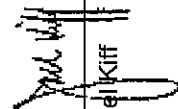
2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Joel Kiff

Report Number : 43429
Date : 5/3/2005

QC Report : Method Blank Data
Project Name : Discount Tire
Project Number :

Parameter	Measured Value	Method Reporting Limit	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	M EPA 8015	4/29/2005	1,3-Dichlorobenzene	< 0.50	0.50	EPA 8260B	4/27/2005
Octasane (Diesel Surrogate)	97.6		M EPA 8015	4/29/2005	1,4-Dichlorobenzene	< 0.50	0.50	EPA 8260B	4/27/2005
Benzene	< 0.50	0.50	EPA 8260B	4/27/2005	1,2-Dichlorobenzene	< 0.50	0.50	EPA 8260B	4/27/2005
Toluene	< 0.50	0.50	EPA 8260B	4/27/2005	1,2-Dibromomethane	< 0.50	0.50	EPA 8260B	4/27/2005
Ethylbenzene	< 0.50	0.50	EPA 8260B	4/27/2005	Toluene - d8 (Surr)	98.4	%	EPA 8260B	4/27/2005
Total Xylenes	< 0.50	0.50	EPA 8260B	4/27/2005	4-Bromofluorobenzene (Surr)	93.5	%	EPA 8260B	4/27/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	EPA 8260B	4/27/2005	Dibromofluoromethane (Surr)	104	%	EPA 8260B	4/27/2005
TPH as Gasoline	< 50	50	EPA 8260B	4/27/2005	1,2-Dichloroethane-d4 (Surr)	102	%	EPA 8260B	4/27/2005
Chloromethane	< 0.50	0.50	EPA 8260B	4/27/2005	Benzene	< 0.50	0.50	EPA 8260B	4/28/2005
Vinyl Chloride	< 0.50	0.50	EPA 8260B	4/27/2005	Toluene	< 0.50	0.50	EPA 8260B	4/28/2005
Bromomethane	< 20	20	EPA 8260B	4/27/2005	Ethylbenzene	< 0.50	0.50	EPA 8260B	4/28/2005
Chloroethane	< 0.50	0.50	EPA 8260B	4/27/2005	Total Xylenes	< 0.50	0.50	EPA 8260B	4/28/2005
Trichlorofluoromethane	< 0.50	0.50	EPA 8260B	4/27/2005	Methyl-t-butyl ether (MTBE)	< 0.50	0.50	EPA 8260B	4/28/2005
1,1-Dichloroethene	< 0.50	0.50	EPA 8260B	4/27/2005	TPH as Gasoline	< 50	50	EPA 8260B	4/28/2005
Methylene Chloride	< 0.50	0.50	EPA 8260B	4/27/2005	Chloromethane	< 0.50	0.50	EPA 8260B	4/28/2005
trans-1,2-Dichloroethene	< 0.50	0.50	EPA 8260B	4/27/2005	Vinyl Chloride	< 0.50	0.50	EPA 8260B	4/28/2005
1,1-Dichloroethane	< 0.50	0.50	EPA 8260B	4/27/2005	Bromomethane	< 20	20	EPA 8260B	4/28/2005
cis-1,2-Dichloroethene	< 0.50	0.50	EPA 8260B	4/27/2005	Chloroethane	< 0.50	0.50	EPA 8260B	4/28/2005
Chloroform	< 0.50	0.50	EPA 8260B	4/27/2005	Trichlorofluoromethane	< 0.50	0.50	EPA 8260B	4/28/2005
1,1,1-Trichloroethane	< 0.50	0.50	EPA 8260B	4/27/2005	1,1-Dichloroethene	< 0.50	0.50	EPA 8260B	4/28/2005
1,2-Dichloroethane	< 0.50	0.50	EPA 8260B	4/27/2005	Methylene Chloride	< 5.0	5.0	EPA 8260B	4/28/2005
Carbon Tetrachloride	< 0.50	0.50	EPA 8260B	4/27/2005	trans-1,2-Dichloroethene	< 0.50	0.50	EPA 8260B	4/28/2005
Trichloroethene	< 0.50	0.50	EPA 8260B	4/27/2005	1,1-Dichloroethane	< 0.50	0.50	EPA 8260B	4/28/2005
1,2-Dichloropropane	< 0.50	0.50	EPA 8260B	4/27/2005	cis-1,2-Dichloroethane	< 0.50	0.50	EPA 8260B	4/28/2005
Bromodichloromethane	< 0.50	0.50	EPA 8260B	4/27/2005	Chloroform	< 0.50	0.50	EPA 8260B	4/28/2005
cis-1,3-Dichloropropene	< 0.50	0.50	EPA 8260B	4/27/2005	1,1,1-Trichloroethane	< 0.50	0.50	EPA 8260B	4/28/2005
trans-1,3-Dichloropropene	< 0.50	0.50	EPA 8260B	4/27/2005	1,2-Dichloroethane	< 0.50	0.50	EPA 8260B	4/28/2005
1,1,2-Trichloroethane	< 0.50	0.50	EPA 8260B	4/27/2005	Carbon Tetrachloride	< 0.50	0.50	EPA 8260B	4/28/2005
Tetrachloroethene	< 0.50	0.50	EPA 8260B	4/27/2005	Trichloroethene	< 0.50	0.50	EPA 8260B	4/28/2005
Dibromochloromethane	< 0.50	0.50	EPA 8260B	4/27/2005	1,2-Dichloropropane	< 0.50	0.50	EPA 8260B	4/28/2005
Chlorobenzene	< 0.50	0.50	EPA 8260B	4/27/2005	Bromodichloromethane	< 0.50	0.50	EPA 8260B	4/28/2005
Bromoform	< 0.50	0.50	EPA 8260B	4/27/2005	cis-1,3-Dichloropropene	< 0.50	0.50	EPA 8260B	4/28/2005
1,1,2,2-Tetrachloroethane	< 0.50	0.50	EPA 8260B	4/27/2005	trans-1,3-Dichloropropene	< 0.50	0.50	EPA 8260B	4/28/2005



Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 43429

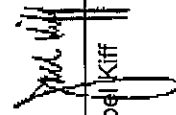
Date : 5/3/2005

QC Report : Method Blank Data

Project Name : Discount Tire

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
1,1,2-Trichloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005					
Tetrachloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005					
Dibromochloromethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005					
Chlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005					
Bromoform	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005					
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005					
1,3-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005					
1,4-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005					
1,2-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005					
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005					
Toluene - d8 (Surr)	102		%	EPA 8260B	4/28/2005					
4-Bromofluorobenzene (Surr)	92.7		%	EPA 8260B	4/28/2005					
Dibromofluoromethane (Surr)	100		%	EPA 8260B	4/28/2005					
1,2-Dichloroethane-d4 (Surr)	101		%	EPA 8260B	4/28/2005					



Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

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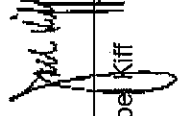
Report Number : 43429
Date : 5/3/2005

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Discount Tire**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	1030	1070	ug/L	M EPA 8015	4/29/05	103	107	4.09	70-130 25
Benzene	43414-02	<0.50	40.0	40.0	43.2	42.7	ug/L	EPA 8260B	4/27/05	108	107	1.29	70-130 25
Toluene	43414-02	<0.50	40.0	40.0	43.1	42.2	ug/L	EPA 8260B	4/27/05	108	105	2.22	70-130 25
Tert-Butanol	43414-02	<5.0	200	200	215	199	ug/L	EPA 8260B	4/27/05	108	99.5	7.82	70-130 25
Methyl-t-Butyl Ether	43414-02	2.8	40.0	40.0	44.8	44.0	ug/L	EPA 8260B	4/27/05	105	103	1.92	70-130 25
Benzene	43426-03	4.4	40.0	40.0	45.0	43.6	ug/L	EPA 8260B	4/28/05	102	98.1	3.69	70-130 25
Toluene	43426-03	46	40.0	40.0	86.3	83.8	ug/L	EPA 8260B	4/28/05	100	94.2	6.48	70-130 25
Tert-Butanol	43426-03	<5.0	200	200	196	194	ug/L	EPA 8260B	4/28/05	97.8	96.8	1.11	70-130 25
Methyl-t-Butyl Ether	43426-03	<0.50	40.0	40.0	37.5	38.2	ug/L	EPA 8260B	4/28/05	93.7	95.4	1.77	70-130 25



Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 43429

Date : 5/3/2005

QC Report : Laboratory Control Sample (LCS)

Project Name : Discount Tire

Project Number :

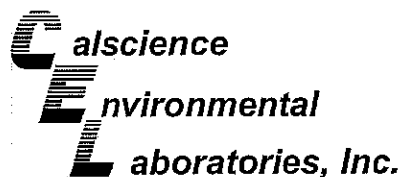
Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	4/27/05	103	70-130
Toluene	40.0	ug/L	EPA 8260B	4/27/05	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	4/27/05	104	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	4/27/05	103	70-130
Benzene	40.0	ug/L	EPA 8260B	4/28/05	98.3	70-130
Toluene	40.0	ug/L	EPA 8260B	4/28/05	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	4/28/05	92.0	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	4/28/05	96.1	70-130

Approved By:

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Joel Kiff



May 03, 2005

Joel Kiff
Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Subject: **Calscience Work Order No.: 05-04-1614**
Client Reference: **Discount Tire**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 4/27/2005 and analyzed in accordance with the attached chain-of-custody.

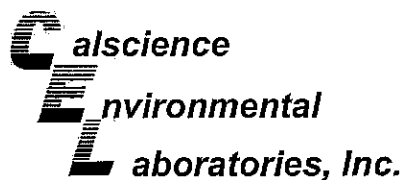
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak'.

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager



Analytical Report



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 04/27/05
Work Order No: 05-04-1614
Preparation: EPA 3005A Filt.
Method: EPA 200.7
Units: mg/L

Project: Discount Tire

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-1	05-04-1614-1	04/26/05	Aqueous	04/27/05	04/28/05	050427L10

Parameter	Result	RL	DF	Qual
Iron	4.30	0.10	1	

MW-2	05-04-1614-2	04/26/05	Aqueous	04/27/05	04/28/05	050427L10
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Parameter	Result	RL	DF	Qual
Iron	ND	0.100	1	

MW-3	05-04-1614-3	04/26/05	Aqueous	04/27/05	04/28/05	050427L10
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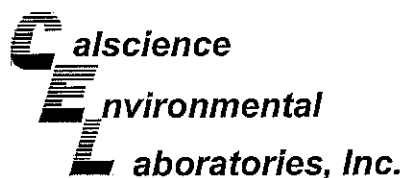
Parameter	Result	RL	DF	Qual
Iron	ND	0.100	1	

MW-4	05-04-1614-4	04/26/05	Aqueous	04/27/05	04/28/05	050427L10
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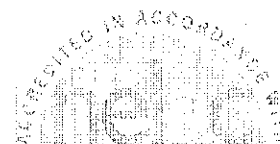
Parameter	Result	RL	DF	Qual
Iron	0.837	0.100	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL: (714) 895-5494 • FAX: (714) 894-7501



Analytical Report



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 04/27/05
Work Order No: 05-04-1614
Preparation: EPA 3010A Total
Method: EPA 200.7
Units: mg/L

Project: Discount Tire

Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-1	05-04-1614-1	04/26/05	Aqueous	04/27/05	04/28/05	050427L10

Parameter	Result	RL	DF	Qual
Potassium	2.49	0.50	1	

MW-2	05-04-1614-2	04/26/05	Aqueous	04/27/05	04/28/05	050427L10
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Parameter	Result	RL	DF	Qual
Potassium	3.84	0.50	1	

MW-3	05-04-1614-3	04/26/05	Aqueous	04/27/05	04/28/05	050427L10
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Parameter	Result	RL	DF	Qual
Potassium	3.87	0.50	1	

MW-4	05-04-1614-4	04/26/05	Aqueous	04/27/05	04/28/05	050427L10
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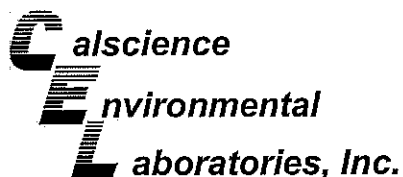
Parameter	Result	RL	DF	Qual
Potassium	2.14	0.50	1	

Method Blank	097-01-012-1.905	N/A	Aqueous	04/27/05	04/28/05	050427L10
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Iron	ND	0.100	1		Potassium	ND	0.500	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Analytical Report



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 04/27/05
Work Order No: 05-04-1614

Project: Discount Tire

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-1	05-04-1614-1	04/26/05	Aqueous

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
o-Phosphate (as P)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Sulfate	3.4	1.0	1		mg/L	N/A	04/28/05	EPA 300.0
Ammonia	ND	0.10	1		mg/L	N/A	04/28/05	EPA 350.2
Total Kjeldahl Nitrogen	0.56	0.50	1		mg/L	N/A	04/29/05	EPA 351.3
Alkalinity, Total (as CaCO ₃)	530	5.0	1		mg/L	N/A	04/28/05	SM 2320B
Iron (II)	4.3	0.1	1		mg/L	N/A	04/27/05	SM3500-FeD

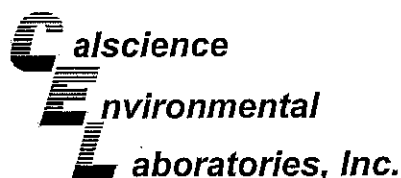
MW-2	05-04-1614-2	04/26/05	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Nitrate (as N)	1.5	0.1	1		mg/L	N/A	04/28/05	EPA 300.0
o-Phosphate (as P)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Sulfate	57	10	10		mg/L	N/A	05/01/05	EPA 300.0
Ammonia	ND	0.10	1		mg/L	N/A	04/28/05	EPA 350.2
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	N/A	04/29/05	EPA 351.3
Alkalinity, Total (as CaCO ₃)	400	5.0	1		mg/L	N/A	04/28/05	SM 2320B
Iron (II)	ND	0.10	1		mg/L	N/A	04/27/05	SM3500-FeD

MW-3	05-04-1614-3	04/26/05	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Nitrate (as N)	4.1	0.1	1		mg/L	N/A	04/28/05	EPA 300.0
o-Phosphate (as P)	0.11	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Sulfate	57	20	20		mg/L	N/A	05/01/05	EPA 300.0
Ammonia	ND	0.10	1		mg/L	N/A	04/28/05	EPA 350.2
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	N/A	04/29/05	EPA 351.3
Alkalinity, Total (as CaCO ₃)	360	5.0	1		mg/L	N/A	04/28/05	SM 2320B
Iron (II)	ND	0.10	1		mg/L	N/A	04/27/05	SM3500-FeD

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



Analytical Report



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received:
Work Order No:

04/27/05
05-04-1614

Project: Discount Tire

Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-4	05-04-1614-4	04/26/05	Aqueous

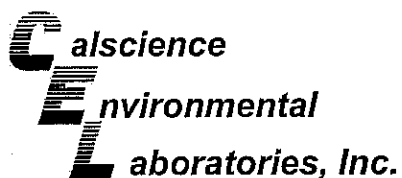
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
o-Phosphate (as P)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Sulfate	16	2	2		mg/L	N/A	05/01/05	EPA 300.0
Ammonia	ND	0.10	1		mg/L	N/A	04/28/05	EPA 350.2
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	N/A	04/29/05	EPA 351.3
Alkalinity, Total (as CaCO3)	460	5.0	1		mg/L	N/A	04/28/05	SM 2320B
Iron (II)	2.0	0.1	1		mg/L	N/A	04/27/05	SM3500-FeD

Method Blank				N/A	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	04/27/05	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	04/27/05	EPA 300.0
o-Phosphate (as P)	ND	0.10	1		mg/L	N/A	04/27/05	EPA 300.0
Sulfate	ND	1.0	1		mg/L	N/A	04/27/05	EPA 300.0
Ammonia	ND	0.10	1		mg/L	N/A	04/28/05	EPA 350.2
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	N/A	04/29/05	EPA 351.3
Iron (II)	ND	0.10	1		mg/L	N/A	04/27/05	SM3500-FeD

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Quality Control - Spike/Spike Duplicate



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 04/27/05
Work Order No: 05-04-1614
Preparation: EPA 3010A Total
Method: EPA 200.7

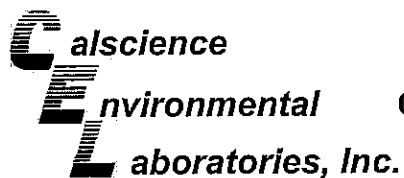
Project Discount Tire

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-1	Aqueous	ICP 3300	04/27/05	04/28/05	050427S10

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Iron	4X	4X	80-120	4X	0-20	Q
Potassium	109	108	80-120	1	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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Quality Control - Spike/Spike Duplicate



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received:
Work Order No:

N/A
05-04-1614

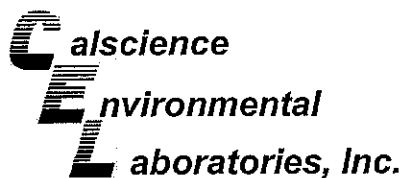
Project: Discount Tire

Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	MS% REC	MSD % REC	%REC CL	RPD	RPD CL	Qualifiers
Nitrite (as N)	EPA 300.0	05-04-1622-1	04/28/05	N/A	100	101	68-122	2	0-8	
Nitrate (as N)	EPA 300.0	05-04-1622-1	04/28/05	N/A	100	100	58-142	0	0-6	
o-Phosphate (as P)	EPA 300.0	05-04-1622-1	04/28/05	N/A	105	109	63-141	4	0-12	
Sulfate	EPA 300.0	05-04-1622-1	04/28/05	N/A	114	114	49-133	0	0-3	
Iron (II)	SM3500-FeD	MW-3	04/27/05	N/A	94	97	70-130	3	0-25	

RPD - Relative Percent Difference, CL - Control Limit

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Quality Control - Duplicate



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received:
Work Order No:

N/A
05-04-1614

Project: Discount Tire

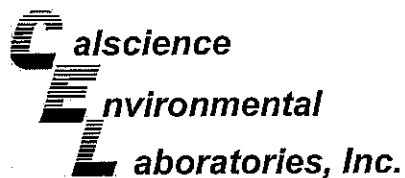
Matrix: Aqueous

Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO ₃)	SM 2320B	MW-4	04/28/05	460	460	0	0-25	
Ammonia	EPA 350.2	05-04-1352-15	04/28/05	18	18	3	0-25	
Total Kjeldahl Nitrogen	EPA 351.3	05-04-1632-1	04/29/05	8400	8300	2	0-25	

RPD - Relative Percent Difference , CL - Control Limit

A handwritten signature in black ink, appearing to be "M. W. W.", located at the bottom left of the page.

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Quality Control - LCS/LCS Duplicate



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: N/A
Work Order No: 05-04-1614
Preparation: EPA 3010A Total
Method: EPA 200.7

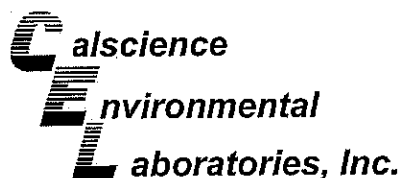
Project: Discount Tire

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-012-1,905	Aqueous	ICP 3300	04/27/05	04/28/05	050427L10

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Iron	104	104	85-115	0	0-20	
Potassium	96	99	85-115	3	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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Quality Control - LCS/LCS Duplicate



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received:
Work Order No:

N/A
05-04-1614

Project: Discount Tire

Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Extracted	Date Analyzed	LCS % REC	LCSD % REC	%REC CL	RPD	RPD CL	Qual
Nitrite (as N)	EPA 300.0	099-05-118-2,694	N/A	04/27/05	99	100	73-115	1	0-26	
Nitrate (as N)	EPA 300.0	099-05-118-2,694	N/A	04/27/05	99	99	87-111	0	0-12	
o-Phosphate (as P)	EPA 300.0	099-05-118-2,694	N/A	04/27/05	108	108	78-126	0	0-22	
Sulfate	EPA 300.0	099-05-118-2,694	N/A	04/27/05	100	100	89-107	0	0-13	

RPD - Relative Percent Difference, CL - Control Limit

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Calscience**E** **nvironmental****L** **aboratories, Inc.**

Quality Control - Laboratory Control Sample



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received:
Work Order No:

N/A
05-04-1614

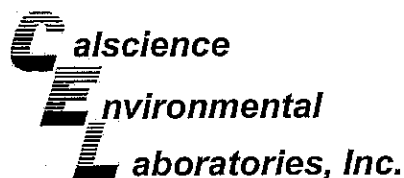
Project: Discount Tire

Matrix : Aqueous

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>Conc Added</u>	<u>Conc Recovered</u>	<u>LCS %Rec</u>	<u>%Rec CL</u>	<u>Qualifiers</u>
Iron (II)	SM3500-FeD	099-05-111-1,909	04/27/05	N/A	1.0	0.97	97	80-120	

RPD - Relative Percent Difference , CL - Control Limit

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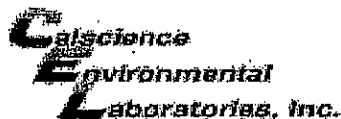
Glossary of Terms and Qualifiers



Work Order Number: 05-04-1614

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

A handwritten signature in black ink, appearing to be "M. J. ...".



WORK ORDER #:

05 - 04 - 1614

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: KIFF ANALYTICALDATE: 4-27-05

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

- ☐ Chilled, cooler with temperature blank provided.
☐ Chilled, cooler without temperature blank.
☐ Chilled and placed in cooler with wet ice.
☐ Ambient and placed in cooler with wet ice.
☐ Ambient temperature.
☐ °C Temperature blank.

LABORATORY (Other than CalScience Courier):

- ☒ 4.1 °C Temperature blank.
☐ °C IR thermometer.
☐ Ambient temperature.

Initial: WB

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: ☒ No (Not Intact): _____ Not Applicable (N/A): _____Initial: WB

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VOA vial(s) free of headspace.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial: WB

COMMENTS:

Cyto Culture

ENVIRONMENTAL
BIOTECHNOLOGY



CytoCulture International, Inc.
249 Tewksbury Avenue
Pt. Richmond, CA 94801 USA

Kiff Analytical, LLC

Project Name: **Discount Tire**

Project Manager: **Joel Kiff**

Address: 2795 Second Street, Suite 300
Davis, CA 95616

Tel: 530-297-4800 Fax: 530-297-4808

Email: inbox@kiffanalytical.com

Reporting date: **May 2, 2005**

CytoCulture lab login: **05-47**

P.O. Number: **43429**

Samples: Four water samples packed on ice were received 04/27/2005. The samples were stored at 4°C and assayed on the same day. Please see the attached chain of custody form.

AEROBIC Heterotrophic Bacteria Enumeration Assay

Analysis Request: Enumeration of aerobic total heterotrophic bacteria by method 9215A (HPC)/ Standard Methods 9215B modified.

Carbon Source for Total Heterotrophic Bacteria: Growth medium was prepared with standard methods total plate count agar (Difco) containing a wide range of carbon sources derived from yeast extract, tryptone, pancreatic digest of casein and glucose.

Protocol for Total Heterotrophic Bacteria: Sterile agar plates (100 x 15 mm) were prepared with minimal salts and 2.35% heterotrophic plate count agar at pH 6.8 without any other carbon source or nutrients added. Sets of triplicate plates were inoculated with 1.0 ml of sample at log dilutions 10^{-1} , 10^{-2} , and 10^{-3} . The heterotrophic plates were counted after 3 days incubation at 30°C. The plate count data is reported as colony forming units (cfu) per milliliter (ml) of sample. Each enumeration value represents a statistical average of two of the four inoculating log dilutions assayed.

AEROBIC Total Heterotroph Bacteria Enumeration Results

Client Sample Number	Sample Date	Aerobic Total Heterotrophic (cfu/ml)	Target Hydrocarbons Tested
MW-1	04/26/05	4×10^3	Gasoline/Diesel
MW-2	04/26/05	2×10^3	Gasoline/Diesel
MW-3	04/26/05	3×10^3	Gasoline/Diesel
MW-4	04/26/05	3×10^3	Gasoline/Diesel
Sterile Water	04/27/05	0	Gasoline/Diesel
Air Control	04/27/05	0	Gasoline/Diesel
Positive Control	04/27/05	8×10^9	Gasoline/Diesel

Reporting Limit for enumeration data is 1.0×10^1 cfu/ml.

A hydrocarbon-degrading bacteria positive control sample was run concurrently with each set of samples using a mixed flask culture of bacteria enriched from contaminated UST sites in Northern California.

CytoCulture is available on a consulting basis to assist in the interpretation of these data and their application to field bioremediation protocols.

Sharon Huang
Laboratory Technician

Randall von Wedel, Ph.D.
Principal Biochemist

[illegible]



Report Number : 44756

Date : 7/18/2005

Stan Walker
Applied Engineering & Geology, Inc.
P. O. Box 247
Lincoln, CA 95648

Subject : 4 Water Samples
Project Name : Discount Tire
Project Number :

Dear Mr. Walker,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff", is written over a printed name label.

Joel Kiff



Report Number : 44756

Date : 7/18/2005

Subject : 4 Water Samples
Project Name : Discount Tire
Project Number :

Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for samples MW-1, MW-2 and MW-4.

Approved By: _____


Joel Kiff



Report Number : 44756

Date : 7/18/2005

Project Name : **Discount Tire**

Project Number :

Sample : **MW-1**

Matrix : Water

Lab Number : 44756-01

Sample Date :7/12/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 1500	1500	ug/L	M EPA 8015	7/15/2005
Octacosane (Diesel Surrogate)	99.4		% Recovery	M EPA 8015	7/15/2005

Sample : **MW-2**

Matrix : Water

Lab Number : 44756-02

Sample Date :7/12/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 300	300	ug/L	M EPA 8015	7/15/2005
Octacosane (Diesel Surrogate)	101		% Recovery	M EPA 8015	7/15/2005

Sample : **MW-3**

Matrix : Water

Lab Number : 44756-03

Sample Date :7/12/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	7/14/2005
Octacosane (Diesel Surrogate)	111		% Recovery	M EPA 8015	7/14/2005

Approved By:

Joel Kiff



Report Number : 44756

Date : 7/18/2005

Project Name : **Discount Tire**

Project Number :

Sample : **MW-4**

Matrix : Water

Lab Number : 44756-04

Sample Date :7/12/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 300	300	ug/L	M EPA 8015	7/14/2005
Octacosane (Diesel Surrogate)	107		% Recovery	M EPA 8015	7/14/2005

Approved By:

Joel Kiff

Sample : MW-1

Project Name : Discount Tire

Project Number :

Lab Number : 44756-01

Date Analyzed : 7/14/2005, 7/15/2005

Matrix : Water

Sample Date : 7/12/2005

Analysis Method: EPA 8260B

Parameter	Measured Value	¹ MRL	Units
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	2.8	0.50	ug/L
Total Xylenes	0.85	0.50	ug/L

Methyl-t-butyl ether (MTBE) < 0.50 0.50 ug/L


TPH as Gasoline **5000** 150 ug/L

Chloromethane	< 0.50	0.50	ug/L
Vinyl Chloride	< 0.50	0.50	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 0.50	0.50	ug/L
Trichlorofluoromethane	< 0.50	0.50	ug/L
1,1-Dichloroethene	< 0.50	0.50	ug/L
Methylene Chloride	< 5.0	5.0 (2)	ug/L
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L
1,1-Dichloroethane	< 0.50	0.50	ug/L
cis-1,2-Dichloroethene	0.52	0.50	ug/L
Chloroform	< 0.50	0.50	ug/L
1,1,1-Trichloroethane	< 0.50	0.50	ug/L
1,2-Dichloroethane	< 0.50	0.50	ug/L
Carbon Tetrachloride	< 0.50	0.50	ug/L
Trichloroethene	< 2.0	2.0 (2)	ug/L
1,2-Dichloropropane	< 0.50	0.50	ug/L
Bromodichloromethane	< 0.50	0.50	ug/L
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L
1,1,2-Trichloroethane	< 8.0	8.0 (2)	ug/L
Tetrachloroethene	< 0.50	0.50	ug/L
Dibromochloromethane	< 0.50	0.50	ug/L
Chlorobenzene	< 0.50	0.50	ug/L
Bromoform	< 0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	< 0.80	0.80 (2)	ug/L
1,3-Dichlorobenzene	< 0.50	0.50	ug/L
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L

Parameter	Measured Value	¹ MRL	Units
Toluene - d8 (Surr)	91.6		% Recovery
4-Bromofluorobenzene (Surr)	108		% Recovery
Dibromofluoromethane (Surr)	101		% Recovery
1,2-Dichloroethane-d4 (Surr)	86.9		% Recovery

1) MRL = Method reporting limit
2) MRL raised due to interference

Approved By:


Joel Kiff

Sample : MW-2

Project Name : Discount Tire

Project Number :

Lab Number : 44756-02

Date Analyzed : 7/14/2005

Matrix : Water

Sample Date : 7/12/2005

Analysis Method: EPA 8260B

Parameter	Measured Value	¹ MRL	Units
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	< 0.50	0.50	ug/L
Total Xylenes	< 0.50	0.50	ug/L

Methyl-t-butyl ether (MTBE) **0.85** 0.50 ug/L

TPH as Gasoline **440** 50 ug/L

Chloromethane	< 0.50	0.50	ug/L
Vinyl Chloride	< 0.50	0.50	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 0.50	0.50	ug/L
Trichlorofluoromethane	< 0.50	0.50	ug/L
1,1-Dichloroethene	< 0.50	0.50	ug/L
Methylene Chloride	< 5.0	5.0	ug/L
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L
1,1-Dichloroethane	< 0.50	0.50	ug/L
cis-1,2-Dichloroethene	1.4	0.50	ug/L
Chloroform	< 0.50	0.50	ug/L
1,1,1-Trichloroethane	< 0.50	0.50	ug/L
1,2-Dichloroethane	< 0.50	0.50	ug/L
Carbon Tetrachloride	< 0.50	0.50	ug/L
Trichloroethene	2.5	0.50	ug/L
1,2-Dichloropropane	< 0.50	0.50	ug/L
Bromodichloromethane	< 0.50	0.50	ug/L
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L
1,1,2-Trichloroethane	< 0.50	0.50	ug/L
Tetrachloroethene	< 0.50	0.50	ug/L
Dibromochloromethane	< 0.50	0.50	ug/L
Chlorobenzene	< 0.50	0.50	ug/L
Bromoform	< 0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	< 1.0	1.0 (2)	ug/L
1,3-Dichlorobenzene	< 0.50	0.50	ug/L
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L

Parameter	Measured Value	¹ MRL	Units
Toluene - d8 (Surr)	100		% Recovery
4-Bromofluorobenzene (Surr)	106		% Recovery
Dibromofluoromethane (Surr)	112		% Recovery
1,2-Dichloroethane-d4 (Surr)	97.8		% Recovery

1) MRL = Method reporting limit
2) MRL raised due to interference

Approved By:


Joel Kiff

Sample : MW-3

Project Name : Discount Tire

Project Number :

Lab Number : 44756-03

Date Analyzed : 7/14/2005

Matrix : Water

Sample Date : 7/12/2005

Analysis Method: EPA 8260B

Parameter	Measured Value	¹ MRL	Units
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	< 0.50	0.50	ug/L
Total Xylenes	< 0.50	0.50	ug/L

Methyl-t-butyl ether (MTBE) 1.0 0.50 ug/L

TPH as Gasoline < 50 50 ug/L

Chloromethane	< 0.50	0.50	ug/L
Vinyl Chloride	< 0.50	0.50	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 0.50	0.50	ug/L
Trichlorofluoromethane	< 0.50	0.50	ug/L
1,1-Dichloroethene	< 0.50	0.50	ug/L
Methylene Chloride	< 5.0	5.0	ug/L
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L
1,1-Dichloroethane	< 0.50	0.50	ug/L
cis-1,2-Dichloroethene	< 0.50	0.50	ug/L
Chloroform	< 0.50	0.50	ug/L
1,1,1-Trichloroethane	< 0.50	0.50	ug/L
1,2-Dichloroethane	< 0.50	0.50	ug/L
Carbon Tetrachloride	< 0.50	0.50	ug/L
Trichloroethene	3.3	0.50	ug/L
1,2-Dichloropropane	< 0.50	0.50	ug/L
Bromodichloromethane	< 0.50	0.50	ug/L
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L
1,1,2-Trichloroethane	< 0.50	0.50	ug/L
Tetrachloroethene	< 0.50	0.50	ug/L
Dibromochloromethane	< 0.50	0.50	ug/L
Chlorobenzene	< 0.50	0.50	ug/L
Bromoform	< 0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L
1,3-Dichlorobenzene	< 0.50	0.50	ug/L
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L

Parameter	Measured Value	¹ MRL	Units
Toluene - d8 (Surr)	99.7		% Recovery
4-Bromofluorobenzene (Surr)	104		% Recovery
Dibromofluoromethane (Surr)	113		% Recovery
1,2-Dichloroethane-d4 (Surr)	103		% Recovery

1) MRL = Method reporting limit
2) MRL raised due to interference

Approved By:


Joel Kiff

Sample : MW-4

Project Name : Discount Tire

Project Number :

Lab Number : 44756-04

Date Analyzed : 7/14/2005

Matrix : Water

Sample Date : 7/12/2005

Analysis Method: EPA 8260B

Parameter	Measured Value	MRL	Units
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	< 0.50	0.50	ug/L
Total Xylenes	< 0.50	0.50	ug/L

Methyl-t-butyl ether (MTBE) 0.72 0.50 ug/L

TPH as Gasoline 1200 50 ug/L

Chloromethane < 0.80 0.80 (2) ug/L

Vinyl Chloride 0.51 0.50 ug/L

Bromomethane < 20 20 ug/L

Chloroethane < 0.50 0.50 ug/L

Trichlorofluoromethane < 0.50 0.50 ug/L

1,1-Dichloroethene < 0.50 0.50 ug/L

Methylene Chloride < 5.0 5.0 ug/L

trans-1,2-Dichloroethene < 0.50 0.50 ug/L

1,1-Dichloroethane < 0.50 0.50 ug/L

cis-1,2-Dichloroethene 1.6 0.50 ug/L

Chloroform < 0.50 0.50 ug/L

1,1,1-Trichloroethane < 0.50 0.50 ug/L

1,2-Dichloroethane < 0.50 0.50 ug/L

Carbon Tetrachloride < 0.50 0.50 ug/L

Trichloroethene < 1.0 1.0 (2) ug/L

1,2-Dichloropropane < 0.50 0.50 ug/L

Bromodichloromethane < 0.50 0.50 ug/L

cis-1,3-Dichloropropene < 0.50 0.50 ug/L

trans-1,3-Dichloropropene < 0.50 0.50 ug/L

1,1,2-Trichloroethane < 0.50 0.50 ug/L

Tetrachloroethene < 0.50 0.50 ug/L

Dibromochloromethane < 0.50 0.50 ug/L

Chlorobenzene < 0.50 0.50 ug/L

Bromoform < 0.50 0.50 ug/L

1,1,2,2-Tetrachloroethane < 2.0 2.0 (2) ug/L

1,3-Dichlorobenzene < 0.50 0.50 ug/L

1,4-Dichlorobenzene < 0.50 0.50 ug/L

1,2-Dichlorobenzene < 0.50 0.50 ug/L

1,2-Dibromoethane < 0.50 0.50 ug/L

Parameter	Measured Value	MRL	Units
Toluene - d8 (Surr)	101		% Recovery
4-Bromofluorobenzene (Surr)	105		% Recovery
Dibromofluoromethane (Surr)	111		% Recovery
1,2-Dichloroethane-d4 (Surr)	100		% Recovery

1) MRL = Method reporting limit

2) MRL raised due to interference

Approved By:



Joel Kiff

Report Number : 44756

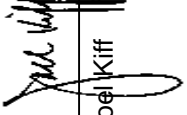
Date : 7/18/2005

QC Report : Method Blank Data

Project Name : **Discount Tire**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	7/14/2005	1,3-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005
Octasane (Diesel Surrogate)	97.0		%	M EPA 8015	7/14/2005	1,4-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005	1,2-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005	1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005	Toluene - d8 (Surr)	100	%		EPA 8260B	7/14/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005	4-Bromofluorobenzene (Surr)	105	%		EPA 8260B	7/14/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005	Dibromofluoromethane (Surr)	114	%		EPA 8260B	7/14/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/14/2005	1,2-Dichloroethane-d4 (Surr)	102	%		EPA 8260B	7/14/2005
Chloromethane	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005	TPH as Gasoline	< 50	50	ug/L	EPA 8260B	7/15/2005
Vinyl Chloride	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
Bromomethane	< 20	20	ug/L	EPA 8260B	7/14/2005						
Chloroethane	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
Trichlorofluoromethane	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
1,1-Dichloroethene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
Methylene Chloride	< 5.0	5.0	ug/L	EPA 8260B	7/14/2005						
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
1,1-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
cis-1,2-Dichloroethene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
Chloroform	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
1,1,1-Trichloroethane	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
Carbon Tetrachloride	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
Trichloroethene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
1,2-Dichloropropane	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
Bromodichloromethane	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
1,1,2-Trichloroethane	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
Tetrachloroethene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
Dibromochloromethane	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
Chlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
Bromoform	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L	EPA 8260B	7/14/2005						

Approved By:  KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 44756

Date : 7/18/2005

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Discount Tire**

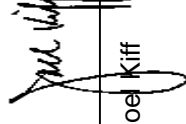
Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	868	962	ug/L	M EPA 8015	7/14/05	86.8	96.2	10.2	70-130	25
Benzene	44739-01	<0.50	40.0	40.0	41.8	40.4	ug/L	EPA 8260B	7/14/05	104	101	3.36	70-130	25
Toluene	44739-01	<0.50	40.0	40.0	41.9	39.5	ug/L	EPA 8260B	7/14/05	105	98.8	5.83	70-130	25
Tert-Butanol	44739-01	<5.0	200	200	219	221	ug/L	EPA 8260B	7/14/05	110	111	0.990	70-130	25
Methyl-t-Butyl Ether	44739-01	<0.50	40.0	40.0	40.1	38.3	ug/L	EPA 8260B	7/14/05	100	95.9	4.50	70-130	25
Benzene	44739-25	<0.50	40.0	40.0	40.1	38.9	ug/L	EPA 8260B	7/15/05	100	97.3	3.07	70-130	25
Toluene	44739-25	<0.50	40.0	40.0	39.1	37.2	ug/L	EPA 8260B	7/15/05	97.7	93.1	4.81	70-130	25
Tert-Butanol	44739-25	<5.0	200	200	195	198	ug/L	EPA 8260B	7/15/05	97.7	98.9	1.27	70-130	25
Methyl-t-Butyl Ether	44739-25	<0.50	40.0	40.0	36.2	35.7	ug/L	EPA 8260B	7/15/05	90.4	89.3	1.32	70-130	25

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By: Joel Kiff



Report Number : 44756

Date : 7/18/2005

QC Report : Laboratory Control Sample (LCS)

Project Name : **Discount Tire**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	7/14/05	99.2	70-130
Toluene	40.0	ug/L	EPA 8260B	7/14/05	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/14/05	107	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/14/05	96.6	70-130
Benzene	40.0	ug/L	EPA 8260B	7/15/05	97.6	70-130
Toluene	40.0	ug/L	EPA 8260B	7/15/05	97.9	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/15/05	96.6	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	7/15/05	88.6	70-130

KIFF ANALYTICAL, LLC

Approved By:

Joel Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800



2795 2nd Street Suite 300
Davis, CA 95616
Lab: 530.297.4800
Fax: 530.297.4808

KIFF ANALYTICAL LLC

Lab No. 44756 Page 1 of 1

Project Contact (Hardcopy or PDF To):

Stan Walker

California EDF Report? ☒ Yes ☐ No

Company / Address:

Applied Engineering & Geology, Inc. P.O.
Box 247 Lincoln, CA 95648

Phone No.: 916.645.6014 Fax No.: 916.645.6098

Project Number: P.O. No.:

Global ID: T0606793641

EDF Deliverable To (Email Address):

aeg@psyber.com

Project Name:

Discount Tire

Sampler

Signature: Richard Bauland

Project Address:

1200 I Street

Sample

Designation

MW-1

MW-2

MW-3

MW-4

Date

7-12-05 1229

1201

1147

1214

Time

5

5

5

5

40 ml VOA

Container

Matrix

AIR

SOIL

WATER

NONE

ICE

HNO₃

HCl

TEDLAR

AMBER

POLY

SLEEVE

Recommended but not mandatory to complete this section:

Sampling Company Log Code:

AEGI

Analysis Request

Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)

7 Oxygenates (8260B)

7 Oxygenates/TPH Gas/BTEX (8260B)

5 Oxygenates/TPH Gas/BTEX (8260B)

TPH as Motor Oil (M8015)

TPH as Diesel (M8015)

TPH Gas/BTEX/MTBE (8260B)

TPH Gas/BTEX/MTBE (8260B)

Volatiles Halocarbons (EPA 8260B)

EPA 8260B (Full List)

Lead (7421/239.2) TOTAL ☐ W.E.T. ☐

TAI

12 Hr 24 Hr 48 Hr 72 Hr 1 WK 2 WK

For Lab Use Only

Relinquished by:

Richard Bauland

Relinquished by:

Richard Bauland

Relinquished by:

Richard Bauland

Date Time Received by:

7-12-05 1410

Date Time Received by:

Date Time Received by Laboratory:

071305 1020

Bill to:

Kiff Analytical

Remarks:

Sample Received
Temp °C 16 Therm. ID# IR-3
Initial MAS Date 071305
Time 1312 Coolant present DN

APPENDIX D

AB2886 Submittal Report

Electronic Submittal Information

[Main Menu](#) | [View/Add Facilities](#) | [Upload EDD](#) | [Check EDD](#)

DISCOUNT TIRE - T0606793641

1200 I ST
SACRAMENTO, CA 95814

* DENOTES THAT A SUBMITTAL HAS BEEN AUTO-RECEIVED

EDF SUBMITTALS

CONF NUM	TITLE	QUARTER	SUBMITTED BY	SUBMIT DATE	STATUS	VIEW SUBMITTAL	QC REPORT
6257433295	PIER	Q4 2001	EARL STEPHENS	2/7/2002	RECEIVED ON 3/6/2003	VIEW SUBMITTAL	QC REPORT
8054859340	DISCOUNT TIRE EDF 02A	Q1 2002	EARL STEPHENS	3/21/2002	RECEIVED ON 5/10/2002	VIEW SUBMITTAL	QC REPORT
4646438479	QUARTERLY MONITORING REPORT, SECOND QUARTER 2002...	Q2 2002	EARL STEPHENS	6/4/2002	RECEIVED ON 7/19/2002	VIEW SUBMITTAL	QC REPORT
4710105001	(27491) QMR 02C	Q3 2002	EARL STEPHENS	9/4/2002	RECEIVED ON 10/16/2002	VIEW SUBMITTAL	QC REPORT
9604175686	(29381) QMR 02D	Q4 2002	EARL STEPHENS	11/20/2002	RECEIVED ON 4/1/2003	VIEW SUBMITTAL	QC REPORT
6126838147	(31278) QMR 03A	Q1 2003	EARL STEPHENS	3/21/2003	RECEIVED ON 7/11/2003	VIEW SUBMITTAL	QC REPORT
6362167119	(32846) QMR 03B	Q2 2003	EARL STEPHENS	5/21/2003	RECEIVED ON 7/16/2003	VIEW SUBMITTAL	QC REPORT
3799719810	(34263) QMR 03C	Q3 2003	EARL STEPHENS	8/14/2003	RECEIVED ON 9/11/2003	VIEW SUBMITTAL	QC REPORT
6859316706	(36005) QMR 03D & STATUS OF WORKPLAN #2	Q4 2003	EARL STEPHENS	12/19/2003	RECEIVED ON 12/26/2003	VIEW SUBMITTAL	QC REPORT
5665729939	(36687) QMR 04A	Q1 2004	EARL STEPHENS	2/13/2004	RECEIVED ON 2/17/2004	VIEW SUBMITTAL	QC REPORT
2218901455	(37830) QMR 04B & RFC	Q2 2004	EARL STEPHENS	5/28/2004	RECEIVED ON 6/3/2004	VIEW SUBMITTAL	QC REPORT
3262231945	(39664) QMR 04C	Q3 2004	EARL STEPHENS	8/27/2004	RECEIVED ON 9/2/2004	VIEW SUBMITTAL	QC REPORT
7457821607	(40578) QMR 04D	Q4 2004	EARL STEPHENS	10/25/2004	RECEIVED ON 11/3/2004	VIEW SUBMITTAL	QC REPORT
9392729640	DISCOUNT TIRE QMR 05A (41928)	Q1 2005	EARL STEPHENS	1/21/2005	RECEIVED ON 1/26/2005	VIEW SUBMITTAL	QC REPORT
7973517060	(43429) DISCOUNT TIRE 05B	Q2 2005	EARL STEPHENS	5/9/2005	RECEIVED ON 5/20/2005	VIEW SUBMITTAL	QC REPORT
4003679811	(44756) DISCOUNT TIRE 05C	Q3 2005	EARL STEPHENS	8/1/2005	PENDING	VIEW SUBMITTAL	DELETE SUBMITTAL QC REPORT

GEO_XY SUBMITTALS

CONF NUM	TITLE	SUBMITTED BY	SUBMIT DATE	STATUS	
1207569718	DISCOUNT TIRE GEO_XY	EARL STEPHENS	5/22/2002	RECEIVED ON 3/6/2003	VIEW SUBMITTAL

GEO_Z SUBMITTALS

CONF NUM	TITLE	SUBMITTED BY	SUBMIT DATE	STATUS	
2756641983	DISCOUNT TIRE GEO_Z	EARL STEPHENS	5/22/2002	RECEIVED ON 3/6/2003	VIEW SUBMITTAL

GEO_WELL SUBMITTALS

CONF NUM	TITLE	SUBMITTED BY	SUBMIT DATE	STATUS		
9687504410	DISCOUNT TIRE GEO_WELL 02A	EARL STEPHENS	3/21/2002	RECEIVED ON 3/6/2003	VIEW SUBMITTAL	
5105930924	DISCOUNT TIRE GEO_WELL 02B	EARL STEPHENS	5/22/2002	RECEIVED ON 3/6/2003	VIEW SUBMITTAL	
5219914078	DISCOOUNT TIRE GEO_WELL 02C	EARL STEPHENS	9/4/2002	RECEIVED ON 3/6/2003	VIEW SUBMITTAL	
3067967057	DISCOUNT TIRE GEO_WELL 02D	EARL STEPHENS	11/20/2002	RECEIVED ON 3/6/2003	VIEW SUBMITTAL	
6897918522	DISCOUNT TIRE GEO_WELL 03A	EARL STEPHENS	3/21/2003	RECEIVED ON 7/11/2003	VIEW SUBMITTAL	
6926502823	DISCOUNT TIRE GEO_WELL 03B	EARL STEPHENS	5/21/2003	RECEIVED ON 7/11/2003	VIEW SUBMITTAL	
8616337418	DISCOUNT TIRE QMR 03C	EARL STEPHENS	8/14/2003	RECEIVED ON 9/5/2003	VIEW SUBMITTAL	
7013432145	QMR 03D & STATUS OF WORKPLAN #2	EARL STEPHENS	12/19/2003	RECEIVED ON 12/26/2003	VIEW SUBMITTAL	
2757995426	DISCOUNT TIRE QMR 04A	EARL STEPHENS	2/13/2004	RECEIVED ON 2/17/2004	VIEW SUBMITTAL	
8578159928	QMR 04B & RFC	EARL STEPHENS	5/28/2004	RECEIVED ON 6/3/2004	VIEW SUBMITTAL	
1844914078	QMR 04C	EARL STEPHENS	8/27/2004	RECEIVED ON 9/2/2004	VIEW SUBMITTAL	
7709808170	DISCOUNT TIRE QMR 04D	EARL STEPHENS	10/25/2004	RECEIVED ON 11/3/2004	VIEW SUBMITTAL	
2715835392	DISCOUNT TIRE QMR 05A	EARL STEPHENS	1/19/2005	RECEIVED ON 1/26/2005	VIEW SUBMITTAL	
6946552872	DISCOUNT TIRE 05B	EARL STEPHENS	5/9/2005	RECEIVED ON 5/20/2005	VIEW SUBMITTAL	
2265965104	DISCOUNT TIRE 05C	EARL STEPHENS	8/1/2005	PENDING	VIEW SUBMITTAL	DELETE SUBMITTAL

GEO_MAP SUBMITTALS

CONF NUM	TITLE	SUBMITTED BY	SUBMIT DATE	STATUS		
8793393790	GEO_MAP	EARL STEPHENS	4/2/2002	DENIED ON 4/1/2003	VIEW SUBMITTAL	DENIAL REASON
1727262198	GEO_MAP	EARL STEPHENS	8/14/2003	RECEIVED ON 8/20/2003	VIEW SUBMITTAL	
5838758170	GEO_MAP	EARL STEPHENS	8/14/2003	RECEIVED ON 8/20/2003	VIEW SUBMITTAL	
2135541617	GEO_MAP	EARL STEPHENS	9/19/2003	RECEIVED ON 10/29/2003	VIEW SUBMITTAL	
8879911124	GEO_MAP	EARL STEPHENS	9/19/2003	RECEIVED ON 10/29/2003	VIEW SUBMITTAL	
6441083610	GEO_MAP	EARL STEPHENS	4/1/2004	RECEIVED ON 4/7/2004	VIEW SUBMITTAL	

GEO_BORE SUBMITTALS

NO GEO_BORE SUBMITTALS FOR THIS FACILITY.

GEO_REPORT SUBMITTALS

CONF NUM	TITLE	SUBMITTED BY	SUBMIT DATE	STATUS	
5636609733	DISCOUNT TIRE 05A	EARL STEPHENS	4/11/2005	RECEIVED ON 4/20/2005	VIEW SUBMITTAL

NAME CHANGE SUBMITTALS

NO NAME CHANGE SUBMITTALS FOR THIS FACILITY.

DUPLICATE FACILITY SUBMITTALS

NO DUPLICATE FACILITY SUBMITTALS FOR THIS FACILITY.

Logged in as AEG, INC. AS REP (AUTH_RP)

CONTACT SITE ADMINISTRATOR.

APPENDIX E

Correspondence

Countywide Services Agency

Environmental Management
Department

Water Protection Division
Cecilia Jensen, Chief



County of Sacramento

Terry Schutten, County Executive
Penelope Clarke, Agency Administrator
Mel Knight, Department Director

March 28, 2005

Dorothy Noyes
Alice Noyes
Betty Van Meter
P.O. Box 621
Lincoln, CA 95648

Dear Mesdames:

**SUBJECT: LOCAL OVERSIGHT PROGRAM SITE NO. F575
DISCOUNT TIRES
1200 I STREET
SACRAMENTO, CA 95814**

On November 17, 2004, this site was submitted for closure consideration to Sacramento County Environmental Management Site Assessment and Mitigation Section (SAMS) staff and State Waterboard Region 5 representative. Closure was not granted due to the absence of a declining trend in groundwater contaminant concentrations at MW-1. The staff requested completion of a Feasibility Study comparing natural attenuation and reduced monitoring with the use of oxygen or air sparging to enhance natural degradation of the contaminant.

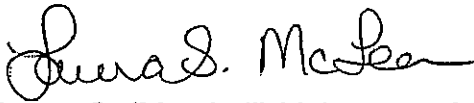
On February 10, 2005, Applied Engineering and Geology, Inc. (AEG) submitted a proposal to evaluate remedial options. In addition, AEG proposed completion of a "Seasonal Kendall" trend analysis for groundwater beneath the site. The workplan is accepted with the following comments:

- A Seasonal Kendall trend analysis has already been completed by this office. No statistically significant declining trend was found in either MW-1 or combined results from MW-1 and MW-4.
- Please prescreen potential remedial technologies. Each technology should be evaluated based upon 1) effectiveness, 2) implementability, and 3) cost.
- After prescreening, pick the best two or three technologies for further evaluation. Further evaluation may include an actual pilot study or may be the collection of additional data such as additional analysis of groundwater for indications of biodegradation.

Dorothy Noyes
Alice Noyes
Betty Van Meter
March 28, 2005
Page 2

Please call if you have any questions (916) 875-8467.

Sincerely,

A handwritten signature in cursive script, appearing to read "Laura S. McLean".

Laura S. (Marshall) McLean, R.G.
Hazardous Materials Division
Site Assessment and Mitigation Unit

c: Kathy Amaru – CVRWQCB
Stan Walker - AEG

W:\DATA\MARSHALL\1200\STWP3.DOC

Main Identity

From: "McLean, Laura" <McLeanL@saccounty.net>
To: "Applied Engineering and Geology, Inc." <aeg@psyber.com>
Sent: Thursday, April 14, 2005 3:09 PM
Subject: RE: Discount Tire Additional Testing

Please include additional proposed analyses as discussed below in your next quarterly monitoring event.

Laura S. Marshall-McLean, R.G.
Site Assessment and Mitigation Section
SCEMD-WP
8475 Jackson Road, Suite 230
Sacramento, CA 95826
(916)875-8467

From: Applied Engineering and Geology, Inc. [mailto:aeg@psyber.com]
Sent: Thursday, April 14, 2005 10:01 AM
To: McLean, Laura
Subject: Discount Tire Additional Testing

Laura McLean,

Per our phone conversation on April 13, 2005, AEG would like to request additional analytical tests be performed during the second quarter sampling event.

As outlined in AEG's Quarterly Monitoring Report, Fourth Quarter 2004, Status of Request for Closure, and Evaluation of Remedial Options Workplan, dated January 31, 2005, AEG would like to additionally analyze all wells for biological indicators and aerobic bacterial plate counts.

Thank you,

Applied Engineering and Geology, Inc.

Ernie Schofield
916.645.6014

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If you are not the intended recipient, please contact the sender immediately and permanently delete the original and any copies of this email and any attachments thereto.

4/14/2005

Main Identity

From: "Applied Engineering and Geology, Inc." <aeg@psyber.com>
To: <mcleanl@saccounty.net>
Sent: Tuesday, July 12, 2005 1:48 PM
Attach: 43429withsubs.pdf
Subject: Discount Tire - Analytical

Laura,

Per our phone conversation, attached is the Second Quarter 2005 analytical, which includes the biological indicator and plate count results. Additionally, the Site is having the Third Quarter sample collected today, July 12, 2005, and those results should be available in about ten days.

Thank you for reviewing the Site for Closure resubmittal. If you have any questions, please contact me at your convenience.

Regards,

Applied Engineering and Geology, Inc.

Ernie

8/15/2005



Report Number : 43429

Date : 5/3/2005

Stan Walker
Applied Engineering & Geology, Inc.
P. O. Box 247
Lincoln, CA 95648

Subject : 4 Water Samples
Project Name : Discount Tire
Project Number :

Dear Mr. Walker,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 43429

Date : 5/3/2005

Subject : 4 Water Samples
Project Name : Discount Tire
Project Number :

Case Narrative

The Method Reporting Limit for TPH as Diesel is increased due to interference from Gasoline-Range Hydrocarbons for samples MW-1, MW-2 and MW-4.

Approved By:

A handwritten signature in black ink, appearing to read "Joe Kiff".

Joe Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800



Report Number : 43429

Date : 5/3/2005

Project Name : Discount Tire

Project Number :

Sample : MW-1

Matrix : Water

Lab Number : 43429-01

Sample Date :4/26/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 1500	1500	ug/L	M EPA 8015	4/30/2005
Octacosane (Diesel Surrogate)	101		% Recovery	M EPA 8015	4/30/2005

Sample : MW-2

Matrix : Water

Lab Number : 43429-02

Sample Date :4/26/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 200	200	ug/L	M EPA 8015	4/30/2005
Octacosane (Diesel Surrogate)	104		% Recovery	M EPA 8015	4/30/2005

Sample : MW-3

Matrix : Water

Lab Number : 43429-03

Sample Date :4/26/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	4/30/2005
Octacosane (Diesel Surrogate)	105		% Recovery	M EPA 8015	4/30/2005

Approved By:


Joel Kiff



Report Number : 43429

Date : 5/3/2005

Project Name : Discount Tire

Project Number :

Sample : MW-4

Matrix : Water

Lab Number : 43429-04

Sample Date : 4/26/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 300	300	ug/L	M EPA 8015	4/30/2005
Octacosane (Diesel Surrogate)	103		% Recovery	M EPA 8015	4/30/2005

Approved By:


Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 43429

Date : 5/3/2005

Sample : MW-1

Project Name : Discount Tire

Project Number :

Lab Number : 43429-01

Date Analyzed : 4/28/2005, 4/27/2005

Matrix : Water

Sample Date : 4/26/2005

Analysis Method: EPA 8260B

Parameter	Measured Value	MRL ¹	Units
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	2.3	0.50	ug/L
Total Xylenes	0.86	0.50	ug/L
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L
TPH as Gasoline	4000	100	ug/L
Chloromethane	< 0.50	0.50	ug/L
Vinyl Chloride	< 0.50	0.50	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 0.50	0.50	ug/L
Trichlorofluoromethane	< 0.50	0.50	ug/L
1,1-Dichloroethene	< 0.50	0.50	ug/L
Methylene Chloride	< 5.0	5.0	ug/L
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L
1,1-Dichloroethane	< 0.50	0.50	ug/L
cis-1,2-Dichloroethene	< 0.50	0.50	ug/L
Chloroform	< 0.50	0.50	ug/L
1,1,1-Trichloroethane	< 0.50	0.50	ug/L
1,2-Dichloroethane	< 0.50	0.50	ug/L
Carbon Tetrachloride	< 0.50	0.50	ug/L
Trichloroethene	< 0.50	0.50	ug/L
1,2-Dichloropropane	< 0.50	0.50	ug/L
Bromodichloromethane	< 0.50	0.50	ug/L
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L
1,1,2-Trichloroethane	< 0.50	0.50	ug/L
Tetrachloroethene	< 0.50	0.50	ug/L
Dibromochloromethane	< 0.50	0.50	ug/L
Chlorobenzene	< 0.50	0.50	ug/L
Bromoform	< 0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L
1,3-Dichlorobenzene	< 0.50	0.50	ug/L
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L

Parameter	Measured Value	MRL ¹	Units
Toluene - d8 (Surr)	93.5		% Recovery
4-Bromofluorobenzene (Surr)	95.4		% Recovery
Dibromofluoromethane (Surr)	94.0		% Recovery
1,2-Dichloroethane-d4 (Surr)	91.6		% Recovery

1) MRL = Method reporting limit

Approved By:

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800


Joel Kiff



Report Number : 43429

Date : 5/3/2005

Sample : MW-2

Project Name : Discount Tire

Project Number :

Lab Number : 43429-02

Date Analyzed : 4/27/2005

Matrix : Water

Sample Date : 4/26/2005

Analysis Method: EPA 8260B

Parameter	Measured Value	MRL ¹	Units
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	< 0.50	0.50	ug/L
Total Xylenes	< 0.50	0.50	ug/L
Methyl-t-butyl ether (MTBE)	0.75	0.50	ug/L
TPH as Gasoline	360	50	ug/L
Chloromethane	< 0.50	0.50	ug/L
Vinyl Chloride	< 0.50	0.50	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 0.50	0.50	ug/L
Trichlorofluoromethane	< 0.50	0.50	ug/L
1,1-Dichloroethene	< 0.50	0.50	ug/L
Methylene Chloride	< 5.0	5.0	ug/L
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L
1,1-Dichloroethane	< 0.50	0.50	ug/L
cis-1,2-Dichloroethene	1.0	0.50	ug/L
Chloroform	< 0.50	0.50	ug/L
1,1,1-Trichloroethane	< 0.50	0.50	ug/L
1,2-Dichloroethane	< 0.50	0.50	ug/L
Carbon Tetrachloride	< 0.50	0.50	ug/L
Trichloroethene	1.7	0.50	ug/L
1,2-Dichloropropane	< 0.50	0.50	ug/L
Bromodichloromethane	< 0.50	0.50	ug/L
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L
1,1,2-Trichloroethane	< 0.50	0.50	ug/L
Tetrachloroethene	< 0.50	0.50	ug/L
Dibromochloromethane	< 0.50	0.50	ug/L
Chlorobenzene	< 0.50	0.50	ug/L
Bromoform	< 0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L
1,3-Dichlorobenzene	< 0.50	0.50	ug/L
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L

Parameter	Measured Value	MRL ¹	Units
Toluene - d8 (Surr)	101		% Recovery
4-Bromofluorobenzene (Surr)	96.1		% Recovery
Dibromofluoromethane (Surr)	104		% Recovery
1,2-Dichloroethane-d4 (Surr)	102		% Recovery

1) MRL = Method reporting limit

Approved By:

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800

Joel Kiff



Report Number : 43429

Date : 5/3/2005

Sample : MW-3

Project Name : Discount Tire

Project Number :

Lab Number : 43429-03

Date Analyzed : 4/27/2005

Matrix : Water

Sample Date : 4/26/2005

Analysis Method: EPA 8260B

Parameter	Measured Value	MRL ¹	Units
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	< 0.50	0.50	ug/L
Total Xylenes	< 0.50	0.50	ug/L
Methyl-t-butyl ether (MTBE)	0.93	0.50	ug/L
TPH as Gasoline	< 50	50	ug/L
Chloromethane	< 0.50	0.50	ug/L
Vinyl Chloride	< 0.50	0.50	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 0.50	0.50	ug/L
Trichlorofluoromethane	< 0.50	0.50	ug/L
1,1-Dichloroethene	< 0.50	0.50	ug/L
Methylene Chloride	< 5.0	5.0	ug/L
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L
1,1-Dichloroethane	< 0.50	0.50	ug/L
cis-1,2-Dichloroethene	< 0.50	0.50	ug/L
Chloroform	< 0.50	0.50	ug/L
1,1,1-Trichloroethane	< 0.50	0.50	ug/L
1,2-Dichloroethane	< 0.50	0.50	ug/L
Carbon Tetrachloride	< 0.50	0.50	ug/L
Trichloroethene	2.8	0.50	ug/L
1,2-Dichloropropane	< 0.50	0.50	ug/L
Bromodichloromethane	< 0.50	0.50	ug/L
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L
1,1,2-Trichloroethane	< 0.50	0.50	ug/L
Tetrachloroethene	< 0.50	0.50	ug/L
Dibromochloromethane	< 0.50	0.50	ug/L
Chlorobenzene	< 0.50	0.50	ug/L
Bromoform	< 0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L
1,3-Dichlorobenzene	< 0.50	0.50	ug/L
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L

Parameter	Measured Value	MRL ¹	Units
Toluene - d8 (Surr)	98.6		% Recovery
4-Bromofluorobenzene (Surr)	94.4		% Recovery
Dibromofluoromethane (Surr)	106		% Recovery
1,2-Dichloroethane-d4 (Surr)	105		% Recovery

1) MRL = Method reporting limit

Approved By:

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800


Joel Kiff



Report Number : 43429

Date : 5/3/2005

Sample : MW-4

Project Name : Discount Tire

Project Number :

Lab Number : 43429-04

Date Analyzed : 4/27/2005, 4/28/2005

Matrix : Water

Sample Date : 4/26/2005

Analysis Method: EPA 8260B

Parameter	Measured Value	MRL ¹	Units
Benzene	< 0.50	0.50	ug/L
Toluene	< 0.50	0.50	ug/L
Ethylbenzene	< 0.50	0.50	ug/L
Total Xylenes	< 0.50	0.50	ug/L
Methyl-t-butyl ether (MTBE)	0.64	0.50	ug/L
TPH as Gasoline	1100	50	ug/L
Chloromethane	< 0.50	0.50	ug/L
Vinyl Chloride	< 0.50	0.50	ug/L
Bromomethane	< 20	20	ug/L
Chloroethane	< 0.50	0.50	ug/L
Trichlorofluoromethane	< 0.50	0.50	ug/L
1,1-Dichloroethene	< 0.50	0.50	ug/L
Methylene Chloride	< 5.0	5.0	ug/L
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L
1,1-Dichloroethane	< 0.50	0.50	ug/L
cis-1,2-Dichloroethene	0.80	0.50	ug/L
Chloroform	< 0.50	0.50	ug/L
1,1,1-Trichloroethane	< 0.50	0.50	ug/L
1,2-Dichloroethane	< 0.50	0.50	ug/L
Carbon Tetrachloride	< 0.50	0.50	ug/L
Trichloroethene	< 0.50	0.50	ug/L
1,2-Dichloropropane	< 0.50	0.50	ug/L
Bromodichloromethane	< 0.50	0.50	ug/L
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L
1,1,2-Trichloroethane	< 0.50	0.50	ug/L
Tetrachloroethene	< 0.50	0.50	ug/L
Dibromochloromethane	< 0.50	0.50	ug/L
Chlorobenzene	< 0.50	0.50	ug/L
Bromoform	< 0.50	0.50	ug/L
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L
1,3-Dichlorobenzene	< 0.50	0.50	ug/L
1,4-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dichlorobenzene	< 0.50	0.50	ug/L
1,2-Dibromoethane	< 0.50	0.50	ug/L

Parameter	Measured Value	MRL ¹	Units
Toluene - d8 (Surr)	103		% Recovery
4-Bromofluorobenzene (Surr)	98.2		% Recovery
Dibromofluoromethane (Surr)	104		% Recovery
1,2-Dichloroethane-d4 (Surr)	100		% Recovery

1) MRL = Method reporting limit

Approved By:

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800


Joel Kiff

Report Number : 43429

Date : 5/3/2005

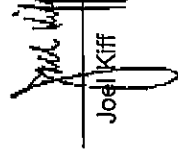
QC Report : Method Blank Data

Project Name : Discount Tire

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	M EPA 8015	4/29/2005
Octasane (Diesel Surrogate)	97.6		%	M EPA 8015	4/29/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	4/27/2005
Chloromethane	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Vinyl Chloride	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Bromomethane	< 20	20	ug/L	EPA 8260B	4/27/2005
Chloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Trichlorofluoromethane	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
1,1-Dichloroethene	< 5.0	5.0	ug/L	EPA 8260B	4/27/2005
Methylene Chloride	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
trans-1,2-Dichloroethene	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
1,1-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
cis-1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Chloroform	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
1,1,1-Trichloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Carbon Tetrachloride	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Trichloroethene	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
1,2-Dichloropropane	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Bromodichloromethane	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
1,1,2-Trichloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Tetrachloroethene	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Dibromochloromethane	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Chlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Bromoform	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
1,3-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
1,4-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
1,2-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	4/27/2005
Toluene - d8 (Sum)	98.4		%	EPA 8260B	4/27/2005
4-Bromofluorobenzene (Sum)	93.5		%	EPA 8260B	4/27/2005
Dibromofluoromethane (Sum)	104		%	EPA 8260B	4/27/2005
1,2-Dichloroethane-d4 (Sum)	102		%	EPA 8260B	4/27/2005
Benzene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
Toluene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	4/28/2005
Chloromethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
Vinyl Chloride	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
Bromomethane	< 20	20	ug/L	EPA 8260B	4/28/2005
Chloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
Trichlorofluoromethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
1,1-Dichloroethene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
Methylene Chloride	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
trans-1,2-Dichloroethene	< 5.0	5.0	ug/L	EPA 8260B	4/28/2005
1,1-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
cis-1,2-Dichloroethene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
Chloroform	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
1,1,1-Trichloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
Carbon Tetrachloride	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
Trichloroethene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
1,2-Dichloropropane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
Bromodichloromethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
cis-1,3-Dichloropropene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005
trans-1,3-Dichloropropene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005



Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number: 43429

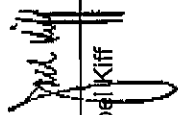
Date: 5/3/2005

QC Report : Method Blank Data

Project Name : Discount Tire

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed	Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
1,1,2-Trichloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005						
Tetrachloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005						
Dibromochloromethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005						
Chlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005						
Bromoform	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005						
1,1,2,2-Tetrachloroethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005						
1,3-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005						
1,4-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005						
1,2-Dichlorobenzene	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005						
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	4/28/2005						
Toluene - d8 (Surr)	102		%	EPA 8260B	4/28/2005						
4-Bromofluorobenzene (Surr)	92.7		%	EPA 8260B	4/28/2005						
Dibromofluoromethane (Surr)	100		%	EPA 8260B	4/28/2005						
1,2-Dichloroethane-d4 (Surr)	101		%	EPA 8260B	4/28/2005						

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number: 43429

Date: 5/3/2005

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Discount Tire**

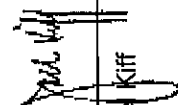
Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	1030	1070	ug/L	M EPA 8015	4/29/05	103	107	4.09	70-130	25
Benzene	43414-02	<0.50	40.0	40.0	43.2	42.7	ug/L	EPA 8260B	4/27/05	108	107	1.29	70-130	25
Toluene	43414-02	<0.50	40.0	40.0	43.1	42.2	ug/L	EPA 8260B	4/27/05	108	105	2.22	70-130	25
Tert-Butanol	43414-02	<5.0	200	200	215	199	ug/L	EPA 8260B	4/27/05	108	99.5	7.82	70-130	25
Methyl-t-Butyl Ether	43414-02	2.8	40.0	40.0	44.8	44.0	ug/L	EPA 8260B	4/27/05	105	103	1.92	70-130	25
Benzene	43426-03	4.4	40.0	40.0	45.0	43.6	ug/L	EPA 8260B	4/28/05	102	98.1	3.69	70-130	25
Toluene	43426-03	46	40.0	40.0	86.3	83.8	ug/L	EPA 8260B	4/28/05	100	94.2	6.48	70-130	25
Tert-Butanol	43426-03	<5.0	200	200	196	194	ug/L	EPA 8260B	4/28/05	97.8	96.8	1.11	70-130	25
Methyl-t-Butyl Ether	43426-03	<0.50	40.0	40.0	37.5	38.2	ug/L	EPA 8260B	4/28/05	93.7	95.4	1.77	70-130	25

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By: Joe Kiff



Report Number : 43429

Date : 5/3/2005

QC Report : Laboratory Control Sample (LCS)

Project Name : **Discount Tire**

Project Number :

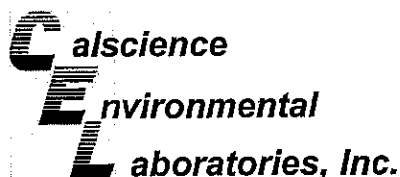
Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	4/27/05	103	70-130
Toluene	40.0	ug/L	EPA 8260B	4/27/05	103	70-130
Tert-Butanol	200	ug/L	EPA 8260B	4/27/05	104	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	4/27/05	103	70-130
Benzene	40.0	ug/L	EPA 8260B	4/28/05	98.3	70-130
Toluene	40.0	ug/L	EPA 8260B	4/28/05	101	70-130
Tert-Butanol	200	ug/L	EPA 8260B	4/28/05	92.0	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	4/28/05	96.1	70-130

Approved By:

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Joel Kiff



May 03, 2005

Joel Kiff
Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Subject: **Calscience Work Order No.: 05-04-1614**
Client Reference: Discount Tire

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 4/27/2005 and analyzed in accordance with the attached chain-of-custody.

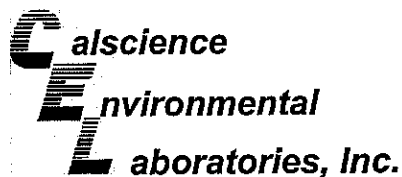
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. Nowak'.

Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager



Analytical Report



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 04/27/05
Work Order No: 05-04-1614
Preparation: EPA 3005A Filtr.
Method: EPA 200.7
Units: mg/L

Project: Discount Tire

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-1	05-04-1614-1	04/26/05	Aqueous	04/27/05	04/28/05	050427L10

Parameter	Result	RL	DF	Qual
Iron	4.30	0.10	1	

MW-2	05-04-1614-2	04/26/05	Aqueous	04/27/05	04/28/05	050427L10
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Parameter	Result	RL	DF	Qual
Iron	ND	0.100	1	

MW-3	05-04-1614-3	04/26/05	Aqueous	04/27/05	04/28/05	050427L10
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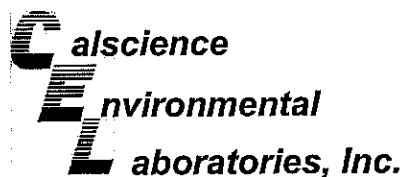
Parameter	Result	RL	DF	Qual
Iron	ND	0.100	1	

MW-4	05-04-1614-4	04/26/05	Aqueous	04/27/05	04/28/05	050427L10
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Parameter	Result	RL	DF	Qual
Iron	0.837	0.100	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Analytical Report



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 04/27/05
Work Order No: 05-04-1614
Preparation: EPA 3010A Total
Method: EPA 200.7
Units: mg/L

Project: Discount Tire

Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
MW-1	05-04-1614-1	04/26/05	Aqueous	04/27/05	04/28/05	050427L10

Parameter	Result	RL	DF	Qual
Potassium	2.49	0.50	1	

MW-2	05-04-1614-2	04/26/05	Aqueous	04/27/05	04/28/05	050427L10
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Parameter	Result	RL	DF	Qual
Potassium	3.84	0.50	1	

MW-3	05-04-1614-3	04/26/05	Aqueous	04/27/05	04/28/05	050427L10
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Parameter	Result	RL	DF	Qual
Potassium	3.87	0.50	1	

MW-4	05-04-1614-4	04/26/05	Aqueous	04/27/05	04/28/05	050427L10
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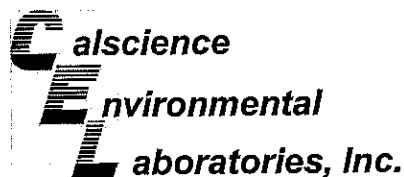
Parameter	Result	RL	DF	Qual
Potassium	2.14	0.50	1	

Method Blank	097-01-012-1,905	N/A	Aqueous	04/27/05	04/28/05	050427L10
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Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Iron	ND	0.100	1		Potassium	ND	0.500	1	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Analytical Report



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 04/27/05
Work Order No: 05-04-1614

Project: Discount Tire

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-1	05-04-1614-1	04/26/05	Aqueous

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
o-Phosphate (as P)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Sulfate	3.4	1.0	1		mg/L	N/A	04/28/05	EPA 300.0
Ammonia	ND	0.10	1		mg/L	N/A	04/28/05	EPA 350.2
Total Kjeldahl Nitrogen	0.56	0.50	1		mg/L	N/A	04/29/05	EPA 351.3
Alkalinity, Total (as CaCO ₃)	530	5.0	1		mg/L	N/A	04/28/05	SM 2320B
Iron (II)	4.3	0.1	1		mg/L	N/A	04/27/05	SM3500-FeD

MW-2	05-04-1614-2	04/26/05	Aqueous
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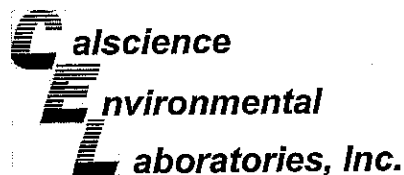
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Nitrate (as N)	1.5	0.1	1		mg/L	N/A	04/28/05	EPA 300.0
o-Phosphate (as P)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Sulfate	57	10	10		mg/L	N/A	05/01/05	EPA 300.0
Ammonia	ND	0.10	1		mg/L	N/A	04/28/05	EPA 350.2
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	N/A	04/29/05	EPA 351.3
Alkalinity, Total (as CaCO ₃)	400	5.0	1		mg/L	N/A	04/28/05	SM 2320B
Iron (II)	ND	0.10	1		mg/L	N/A	04/27/05	SM3500-FeD

MW-3	05-04-1614-3	04/26/05	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Nitrate (as N)	4.1	0.1	1		mg/L	N/A	04/28/05	EPA 300.0
o-Phosphate (as P)	0.11	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Sulfate	57	20	20		mg/L	N/A	05/01/05	EPA 300.0
Ammonia	ND	0.10	1		mg/L	N/A	04/28/05	EPA 350.2
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	N/A	04/29/05	EPA 351.3
Alkalinity, Total (as CaCO ₃)	360	5.0	1		mg/L	N/A	04/28/05	SM 2320B
Iron (II)	ND	0.10	1		mg/L	N/A	04/27/05	SM3500-FeD

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Analytical Report



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received:
Work Order No:

04/27/05
05-04-1614

Project: Discount Tire

Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-4	05-04-1614-4	04/26/05	Aqueous

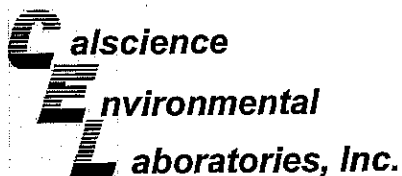
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
o-Phosphate (as P)	ND	0.10	1		mg/L	N/A	04/28/05	EPA 300.0
Sulfate	16	2	2		mg/L	N/A	05/01/05	EPA 300.0
Ammonia	ND	0.10	1		mg/L	N/A	04/28/05	EPA 350.2
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	N/A	04/29/05	EPA 351.3
Alkalinity, Total (as CaCO ₃)	460	5.0	1		mg/L	N/A	04/28/05	SM 2320B
Iron (II)	2.0	0.1	1		mg/L	N/A	04/27/05	SM3500-FeD

Method Blank	N/A	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Nitrite (as N)	ND	0.10	1		mg/L	N/A	04/27/05	EPA 300.0
Nitrate (as N)	ND	0.10	1		mg/L	N/A	04/27/05	EPA 300.0
o-Phosphate (as P)	ND	0.10	1		mg/L	N/A	04/27/05	EPA 300.0
Sulfate	ND	1.0	1		mg/L	N/A	04/27/05	EPA 300.0
Ammonia	ND	0.10	1		mg/L	N/A	04/28/05	EPA 350.2
Total Kjeldahl Nitrogen	ND	0.50	1		mg/L	N/A	04/29/05	EPA 351.3
Iron (II)	ND	0.10	1		mg/L	N/A	04/27/05	SM3500-FeD

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

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Quality Control - Spike/Spike Duplicate



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: 04/27/05
Work Order No: 05-04-1614
Preparation: EPA 3010A Total
Method: EPA 200.7

Project Discount Tire

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-1	Aqueous	ICP 3300	04/27/05	04/28/05	050427S10

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Iron	4X	4X	80-120	4X	0-20	Q
Potassium	109	108	80-120	1	0-20	

RPD - Relative Percent Difference, CL - Control Limit

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Calscience**Environmental****Laboratories, Inc.****Quality Control - Spike/Spike Duplicate**

Kiff Analytical
 2795 2nd Street, Suite 300
 Davis, CA 95616-6593

Date Received:
 Work Order No:

N/A
 05-04-1614

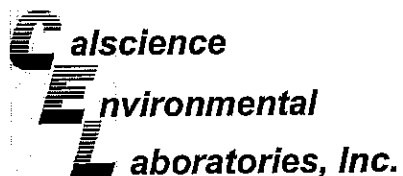
Project: Discount Tire

Matrix: Aqueous

<u>Parameter</u>	<u>Method</u>	<u>Quality Control</u> <u>Sample ID</u>	<u>Date</u> <u>Analyzed</u>	<u>Date</u> <u>Extracted</u>	<u>MS%</u> <u>REC</u>	<u>MSD %</u> <u>REC</u>	<u>%REC</u> <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	<u>Qualifiers</u>
Nitrite (as N)	EPA 300.0	05-04-1622-1	04/28/05	N/A	100	101	68-122	2	0-8	
Nitrate (as N)	EPA 300.0	05-04-1622-1	04/28/05	N/A	100	100	58-142	0	0-6	
o-Phosphate (as P)	EPA 300.0	05-04-1622-1	04/28/05	N/A	105	109	63-141	4	0-12	
Sulfate	EPA 300.0	05-04-1622-1	04/28/05	N/A	114	114	49-133	0	0-3	
Iron (II)	SM3500-FeD	MW-3	04/27/05	N/A	94	97	70-130	3	0-25	

RPD - Relative Percent Difference , CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



Quality Control - Duplicate



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received:
Work Order No:

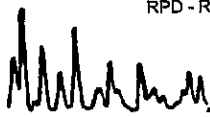
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05-04-1614

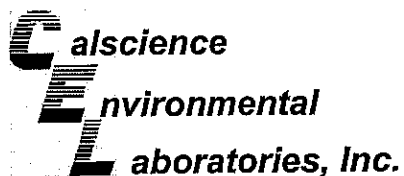
Project: Discount Tire

Matrix: Aqueous

Parameter	Method	QC Sample ID	Date Analyzed	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Alkalinity, Total (as CaCO ₃)	SM 2320B	MW-4	04/28/05	460	460	0	0-25	
Ammonia	EPA 350.2	05-04-1352-15	04/28/05	18	18	3	0-25	
Total Kjeldahl Nitrogen	EPA 351.3	05-04-1632-1	04/29/05	8400	8300	2	0-25	

RPD - Relative Percent Difference , CL - Control Limit

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Quality Control - LCS/LCS Duplicate



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received: N/A
Work Order No: 05-04-1614
Preparation: EPA 3010A Total
Method: EPA 200.7

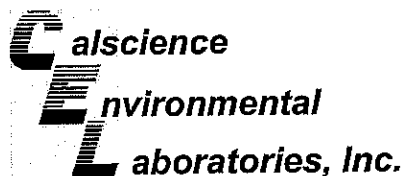
Project: Discount Tire

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-012-1,905	Aqueous	ICP 3300	04/27/05	04/28/05	050427L10

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Iron	104	104	85-115	0	0-20	
Potassium	96	99	85-115	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501



Quality Control - LCS/LCS Duplicate



Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received:
Work Order No:

N/A
05-04-1614

Project: Discount Tire

Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Extracted	Date Analyzed	LCS % REC	LCSD % REC	%REC CL	RPD	RPD CL	Qual
Nitrite (as N)	EPA 300.0	099-05-118-2,694	N/A	04/27/05	99	100	73-115	1	0-26	
Nitrate (as N)	EPA 300.0	099-05-118-2,694	N/A	04/27/05	99	99	87-111	0	0-12	
o-Phosphate (as P)	EPA 300.0	099-05-118-2,694	N/A	04/27/05	108	108	78-126	0	0-22	
Sulfate	EPA 300.0	099-05-118-2,694	N/A	04/27/05	100	100	89-107	0	0-13	

RPD - Relative Percent Difference , CL - Control Limit

7440 Lincoln Way, Garden Grove, CA 92841-1427 • TEL:(714) 895-5494 • FAX: (714) 894-7501

**Environmental****Laboratories, Inc.****Quality Control - Laboratory Control Sample**

Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Date Received:
Work Order No:

N/A
05-04-1614

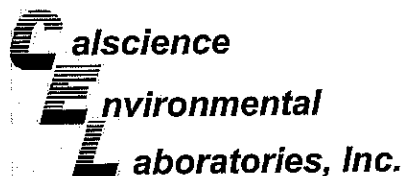
Project: Discount Tire

Matrix: Aqueous

Parameter	Method	Quality Control Sample ID	Date Analyzed	Date Extracted	Conc Added	Conc Recovered	LCS %Rec	%Rec CL	Qualifiers
Iron (II)	SM3500-FeD	099-05-111-1,909	04/27/05	N/A	1.0	0.97	97	80-120	

RPD - Relative Percent Difference , CL - Control Limit

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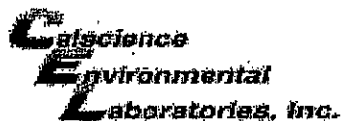
Glossary of Terms and Qualifiers



Work Order Number: 05-04-1614

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

A handwritten signature in black ink, appearing to be "M. L. ...", located at the bottom left of the page.



WORK ORDER #:

05 - 04 - 1614

Cooler 1 of 1**SAMPLE RECEIPT FORM**CLIENT: KIFF ANALYTICALDATE: 4-27-05**TEMPERATURE – SAMPLES RECEIVED BY:****CALSCIENCE COURIER:**

- ☐ Chilled, cooler with temperature blank provided.
☐ Chilled, cooler without temperature blank.
☐ Chilled and placed in cooler with wet ice.
☐ Ambient and placed in cooler with wet ice.
☐ Ambient temperature.
☐ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

- ☒ 4.1 °C Temperature blank.
☐ °C IR thermometer.
☐ Ambient temperature.

Initial: WB**CUSTODY SEAL INTACT:**Sample(s): _____ Cooler: ☒ No (Not Intact): _____ Not Applicable (N/A): _____Initial: WB**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container label(s) consistent with custody papers.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on sample label(s).....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VOA vial(s) free of headspace.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Initial: WB**COMMENTS:**

Cyto Culture

ENVIRONMENTAL
BIOTECHNOLOGY



CytoCulture International, Inc.
249 Tewksbury Avenue
Pt. Richmond, CA 94801 USA

Kiff Analytical, LLC

Project Name: **Discount Tire**

Project Manager: **Joel Kiff**

Address: 2795 Second Street, Suite 300

Davis, CA 95616

Tel: 530-297-4800 Fax: 530-297-4808

Email: inbox@kiffanalytical.com

Reporting date: **May 2, 2005**

CytoCulture lab login: **05-47**

P.O. Number: **43429**

Samples: Four water samples packed on ice were received 04/27/2005. The samples were stored at 4°C and assayed on the same day. Please see the attached chain of custody form.

AEROBIC Heterotrophic Bacteria Enumeration Assay

Analysis Request: Enumeration of aerobic total heterotrophic bacteria by method 9215A (HPC)/ Standard Methods 9215B modified.

Carbon Source for Total Heterotrophic Bacteria: Growth medium was prepared with standard methods total plate count agar (Difco) containing a wide range of carbon sources derived from yeast extract, tryptone, pancreatic digest of casein and glucose.

Protocol for Total Heterotrophic Bacteria: Sterile agar plates (100 x 15 mm) were prepared with minimal salts and 2.35% heterotrophic plate count agar at pH 6.8 without any other carbon source or nutrients added. Sets of triplicate plates were inoculated with 1.0 ml of sample at log dilutions 10^{-1} , 10^{-2} , and 10^{-3} . The heterotrophic plates were counted after 3 days incubation at 30°C. The plate count data is reported as colony forming units (cfu) per milliliter (ml) of sample. Each enumeration value represents a statistical average of two of the four inoculating log dilutions assayed.

AEROBIC
Total Heterotroph Bacteria Enumeration Results

Client Sample Number	Sample Date	Aerobic Total Heterotrophic (cfu/ml)	Target Hydrocarbons Tested
MW-1	04/26/05	4×10^3	Gasoline/Diesel
MW-2	04/26/05	2×10^3	Gasoline/Diesel
MW-3	04/26/05	3×10^3	Gasoline/Diesel
MW-4	04/26/05	3×10^3	Gasoline/Diesel
Sterile Water	04/27/05	0	Gasoline/Diesel
Air Control	04/27/05	0	Gasoline/Diesel
Positive Control	04/27/05	8×10^9	Gasoline/Diesel

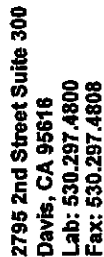
Reporting Limit for enumeration data is 1.0×10^1 cfu/ml.

A hydrocarbon-degrading bacteria positive control sample was run concurrently with each set of samples using a mixed flask culture of bacteria enriched from contaminated UST sites in Northern California.

CytoCulture is available on a consulting basis to assist in the interpretation of these data and their application to field bioremediation protocols.

Sharon Huang
Laboratory Technician

Randall von Wedel, Ph.D.
Principal Biochemist

[illegible]



Countywide Services Agency

Environmental Management
Department

Water Protection Division
Cecilia Jensen, Chief

Terry Schutten, County Executive
Penelope Clarke, Agency Administrator
Mel Knight, Department Director

County of Sacramento

August 1, 2005

Dorothy Noyes
Alice Noyes
Betty Van Meter
P.O. Box 621
Lincoln, CA 95648

Dear Mesdames:

**SUBJECT: LOCAL OVERSIGHT PROGRAM SITE NO. F575
DISCOUNT TIRES
1200 I STREET
SACRAMENTO, CA 95814**

On July 29, 2005, this site was submitted for closure consideration to Sacramento County Environmental Management Site Assessment and Mitigation Section (SAMS) staff and Regional Water Quality Control Board (RWQCB) Region 5 representative. With RWQCB concurrence, site closure activities can proceed at this site. Please decommission all groundwater monitoring wells, and dispose of all soil cuttings and purge waters generated by the investigation, remediation and monitoring of the subject site. Once these activities have been completed, a final site inspection will be conducted to verify compliance with our directives, and this Department will issue a "No Further Action" letter.

Please call if you have any questions (916) 875-8467.

Sincerely,

Laura S. (Marshall) McLean, P.G.
Water Protection Division
Site Assessment and Mitigation Unit

LSM:ks

c: Kathy Amaru – CVRWQCB
Stan Walker - AEG

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